MERGER / AQUISITION STRATEGIES IN THE INFORMATION SERVICES MARKET

INPUT

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INPUT provides planning information, analysis, and recommendations to managers and executives in the information processing industries. Through market research, technology forecasting, and competitive analysis, INPUT supports client management in making informed decisions. Continuing services are provided to users and vendors of computers, communications, and office products and services.

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Planning Services For Management

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MERGER/ACQUISITION STRATEGIES IN THE INFORMATION SERVICES MARKET

EXHIBITS

I INTRODUCTION

I INTRODUCTION

A. SCOPE

- The report was produced as part of the Market Analysis and Planning Service (MAPS) and is intended for clients of that program.

- It reevaluates the role, value, advantages and pitfalls of acquisitions in vendor market strategies by examining the diverse ways that the acquisition process is being used today in the information services vendor community. Where possible the report references recent acquisitions and compares the intended objective of the acquiror with the actual results achieved.

- Interviews for this report were conducted in December 1984 with senior staff (presidents, vice president, stragegic planners, etc.) of the acquiror and the acquiree. Where confidentiality was requested, the data is referenced without identification or used for composite growth rates, market trends, etc.

B. PURPOSE

- The pattern of acquisition activity in the U.S. information services marketplace has changed substantially since the late 1970s-early 1980s period when the principal objective was to grow the revenue volume to achieve economies of scale and greater market share.

- More recently the major objectives of acquisitions have been:

  - Enter new vertical markets that are compatible with the overall market strategy of the acquiror adding new technologies, products and customer bases as well as the in-house competence in the new market by acquiring the related people skills.

  - Continue to rapidly grow market shares in current markets and by-pass long market development/sales cycles by the acquisition short cut.

  - Take advantage of the opportunities offered by failures in competitive businesses, thereby acquiring key acounts/products.

  - Take defensive positions in fast-developing markets that otherwise would pass the acquiror by (e.g., PC software).

- For many companies the value of the acquisitions made over the last two years has been less than satisfactory and an air of realism, not always present in earlier acquisitions, is prevalent in today's market. This has made acquirors wary of growth for growth's sake and resulted in harder bargains being driven.

- The general financial rule that applies to any new investment requires that the uncertainty premium be as high as the interest rate (i.e., that the return on the investment made be at least twice that of the current interest rate net of inflation or 8% in 1984). There are a large number of acquisitions that offer that kind of return or better in today's market, but the competition is fierce.

- An increasingly popular option that acquirors have to contend with (and the most competitive one they meet in today's marketplace) is the leveraged buy-out by the management team of the targeted company. This approach converts many of the weaknesses of a typical acquisition into advantages:

- A buyout of the founding managers leaves them with few incentives to continue to work hard for their new owners. The leveraged buy-out works in reverse: they are now motivated as never before since their own futures are at stake (and often their own capital).

- In a normal acquisition it is difficult for the acquiror to see what other options are open to the target company and if the current financials faithfully reflect the actual potential of the company or only its history; in a leveraged buy-out the reverse is true: the management knows the actual and potential value of the company very precisely.

- These and other major trends in the marketplace are examined in this report and INPUT invites client comment and inquiry.

C. RESEARCH METHODOLOGY

- The research for this report was obtained by telephone discussions with senior management of information services companies that have been or are active in the acquisition/merger field or who have been the object of a take-over/merger.

- The questionnaires used for the above-mentioned interviews are found in Appendices A (acquiror) and B (acquiree).

- Statistics on the trends in information services acquisitions were obtained from Broadview Associates, supplemented with INPUT's own files on acquisitions and information market forecasts. Expert opinion on the acquisition process was obtained from several industry executives involved in acquisitions over the last ten years.

II EXECUTIVE SUMMARY

II EXECUTIVE SUMMARY

- This executive summary is designed in a presentation format in order to:

    - Help the busy reader quickly review key research findings.

    - Provide a ready-to-go executive presentation, complete with a script to facilitate group communication.

- Key points of the report are summarized in Exhibits II-1 through II-5. On the left-hand page facing each exhibit is a script explaining the contents of the exhibit.

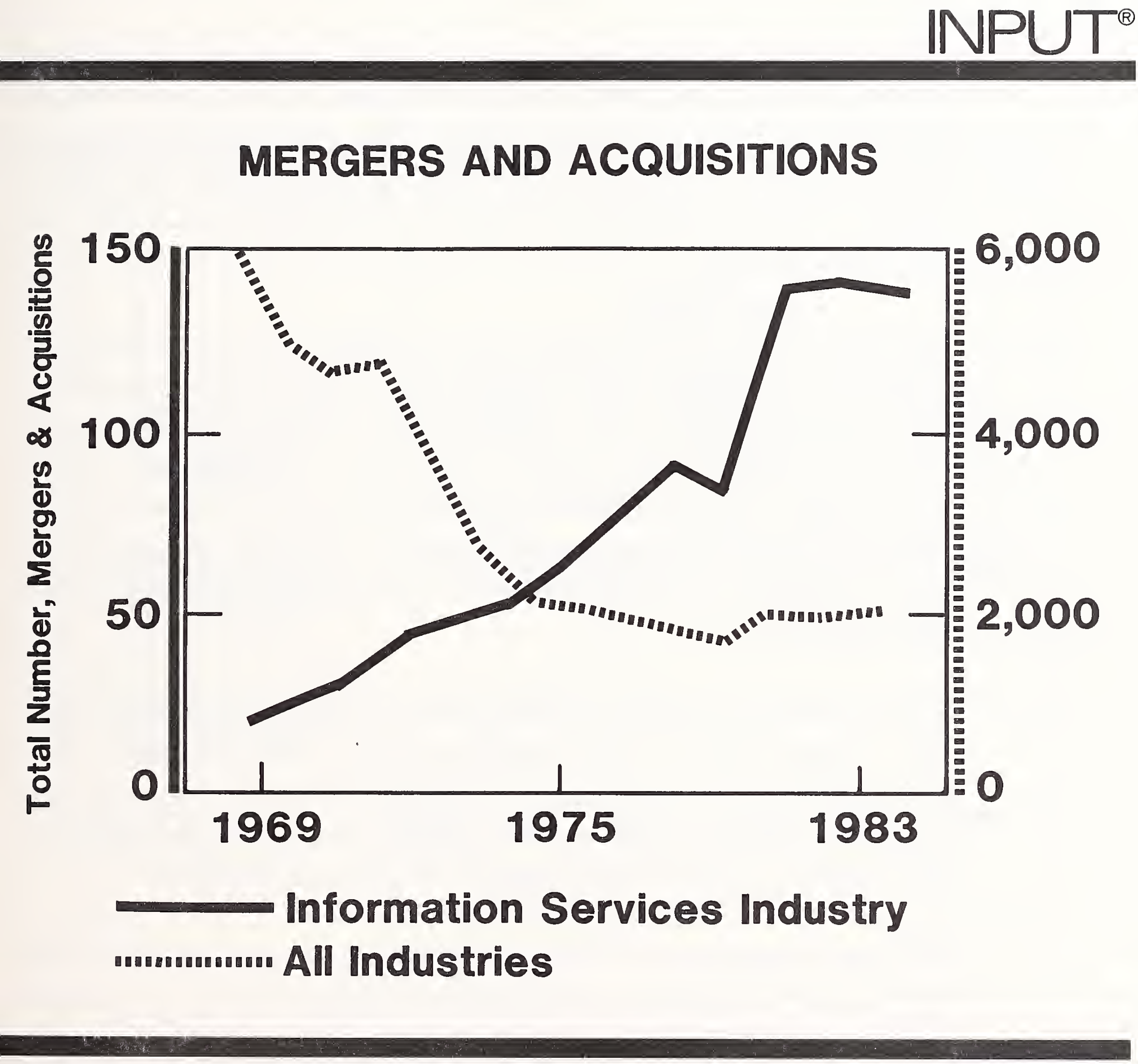
A. U.S. INFORMATION SERVICES INDUSTRY ACQUISITIONS (1969-1983)

- Over the last 14 years the yearly rate of acquisitions of all types in the U.S. has decreased from over 6,000 per annum to just over 2,500. During that same period the rate of mergers and acquisitions in the information services industry alone has steadily risen, from a small 20 per year to nearly 150 by the end of 1983 (see Exhibit II-1).

- The value of the transactions accomplished has jumped in both categories of industry (tripling to $73.1 billion in all U.S. industries and rising above $1 billion for the information services industry alone for the first time in 1983). This trend was continued in the first six months of 1984 when the value of information services transactions rose to a staggering $3.65 billion, mainly on the strength of the two largest acquisitions in the history of the industry (the purchase of Tymshare by McDonnell Douglas in March 1984 for $307 million and the purchase of Electronic Data Systems by General Motors for $2.5 billion in June 1984). Other significant acquisitions (i.e., those over $10 million in value) include the leveraged buyout of CGA Computer Assoc. assisted by General Atlantic Corporation ($44.3 million), Lockheed's purchase of Datacom Systems ($38 million), Computer Associates' purchase of Sorcim (for $17.6 million) and of Johnson Systems ($16 million), and AGS Computers' purchase of SDA Software Inc. for $12.7 million.

- The pace of acquisitions is now beginning to slow, however, as the average size of the individual transaction has increased. It is likely that 1984 will be the peak year for information service acquisitions in terms of total value of the transactions accomplished and in the premium paid over market value; the P/E ratios for public information services companies have been running at twice the level of the S&P companies, but are now dropping steadily.

EXHIBIT II-1


INPUT®
MERGERS AND ACQUISITIONS
Total Number, Mergers & Acquisitions
150
100
50
0
6,000
4,000
2,000
0
1969
1975
1983
Information Services Industry
All Industries

B. SOFTWARE COMPANIES TAKE CENTER STAGE

- Principal among the information services companies targeted by acquisitions and mergers have been software products vendors, who have been steadily growing in importance since 1980. In 1984, 57% of all transactions concerned software products. (Note that the number of transactions is used as the yardstick to avoid the enormous impact of the GM/EDS purchase on the percentages by value.)

- The breakdown of the transactions is given in Exhibit II-2, which demonstrates the rapid rise to prominence of the micro-based software products companies which tripled their share of the transactions in two years. This is likely to be a one-time occurrence, however, since the number of success stories among microcomputer software companies has plummeted (principally due to the shift that has occurred in their market, away from the individual purchaser they are organized to serve and toward the corporate buyer their products are not designed for).

- Software product acquisitions in general are likely to remain strong, however, since the opportunities are wide-ranging and in many cases very attractive in terms of growth and profitability. Mini- and mainframe-based software companies remain an excellent source of high growth acquisitions that represent an avenue to customer-base growth in key vertical markets.

- Micro-based acquisitions are likely to experience a temporary lull, while the bad taste left by single-user micro-oriented software companies goes away. Expect a second phase in micro-based software company acquisitions in 1986-1988 when the multiuser micro-based software companies will be showing attractive returns.

EXHIBIT II-2

INPUT®

SOFTWARE COMPANIES TAKE CENTER STAGE

DELIVERY MODE	PERCENT					
	1982		1983		1984	
	#	$	#	$	#	$
Processing Services	47%	53%	30%	44%	36%	80%
Professional Services	7	6	10	2	7	1
Software Products	46	41	60	54	57	19

C. INDUSTRY IMPACT AND LIMITATIONS OF ACQUISITIONS

- In evaluating the impact of acquisitions and mergers on the information services industry we must ask ourselves: "Does the industry benefit from such transactions?" This is a different view from that of the acquirors, whose revenues and (they hope) profits will be increased by the transition, but which may be less than the sum of the individual revenues and profits of the two companies prior to the acquisition.

- Exhibit II-3 summarizes the main points from the industry viewpoint: up to a certain point, concentration of vendors is a positive step because it integrates (and to a certain extent standardizes) the services offered. Users also benefit from being serviced by strong vendors who can offer a broader spectrum of services at improved price/performance ratios.

- However, there are many limitations from the industry's standpoint:

  - Very rarely does an acquisition contribute to industry growth--in fact, the average acquisition may diminish the industry's growth compared with the sum of the merged companies; this is principally due to the difficulty of accomplishing the integration of two different management philosophies and company strategies, let alone the different sales forces, product lines, and individuals.

  - Also, rarely does a merger/acquisition solve internal weaknesses; indeed, they may be accentuated as the strain on management resources increases.

- The conclusion must be that the information services industry incurs a short-term loss when an acquisition takes place, which (one hopes) will be offset by the vendor/service concentration in the long term.

EXHIBIT II-3

INPUT®

INDUSTRY IMPACT & LIMITATIONS OF ACQUISITIONS

	Positive/ Negative
Impact	
• Concentration of Vendors/Integration of Services/Merging of User Bases	(+)
• Little/No Contribution to Growth	(–)
• Variable Contribution to Profit	(+/–)
Limitations	
• Does not Solve Internal Problems/ Puts a Strain on Management	(–)
• Requires Merging of Different Strategies	(+/–)

Short-Term Loss, Long-Term Gain

D. STRATEGIC PARTNERING: AN ACQUISITION OPTION

- The rapidly accelerating pace of technology development, application and obsolescence has reached the information services marketplace, affecting the ability of the vendors involved to obtain maximum benefit from the opportunities (see Exhibit II-4):

  - Shorter product life cycles translate into higher front-end costs for developing markets and shorter payback periods in which to recover the investments made.

  - The structure of each market is constantly changing, rearranging the mix of competitors' distribution channels, marketing/sales methods that are applicable, and the role of participants.

  - The higher complexity of products and markets means that the abilities of each vendor map less and less completely onto the target user requirements.

- The speed of development of new market opportunities and the increasing risk of formal acquisition makes strategic partnering an attractive alternative. It allows small and large companies alike to widen their strategic plans with regard to product/service spectrum, growth rate, and market coverage.

- This approach also allows formal acquisitions to proceed with less risk: once two companies have proven that they can work together as strategic partners, showing a common strategy with clearly defined and complementary roles for each, then a more definitive and intimate relationship can be attempted. Certainly any weaknesses or incompatibilities will be rapidly made apparent: strategic partnering magnifies each company's internal problems by mutual dependency on common business systems.

INPUT®

STRATEGIC PARTNERING: AN ACQUISITION OPTION

- Accelerating Pace of Technology
- Complexity of Products/Markets

↓

- Shortened Product Life Cycles
- Rapidly Changing Market Structures

Need to Exploit Narrowing Market Windows

↓

Strategic Partnering (Trial Engagement)

↓

Formal Acquisition/Merger

E. SINGLE-SOURCE SERVICE: A STRATEGIC GUIDE TO ACQUISITIONS

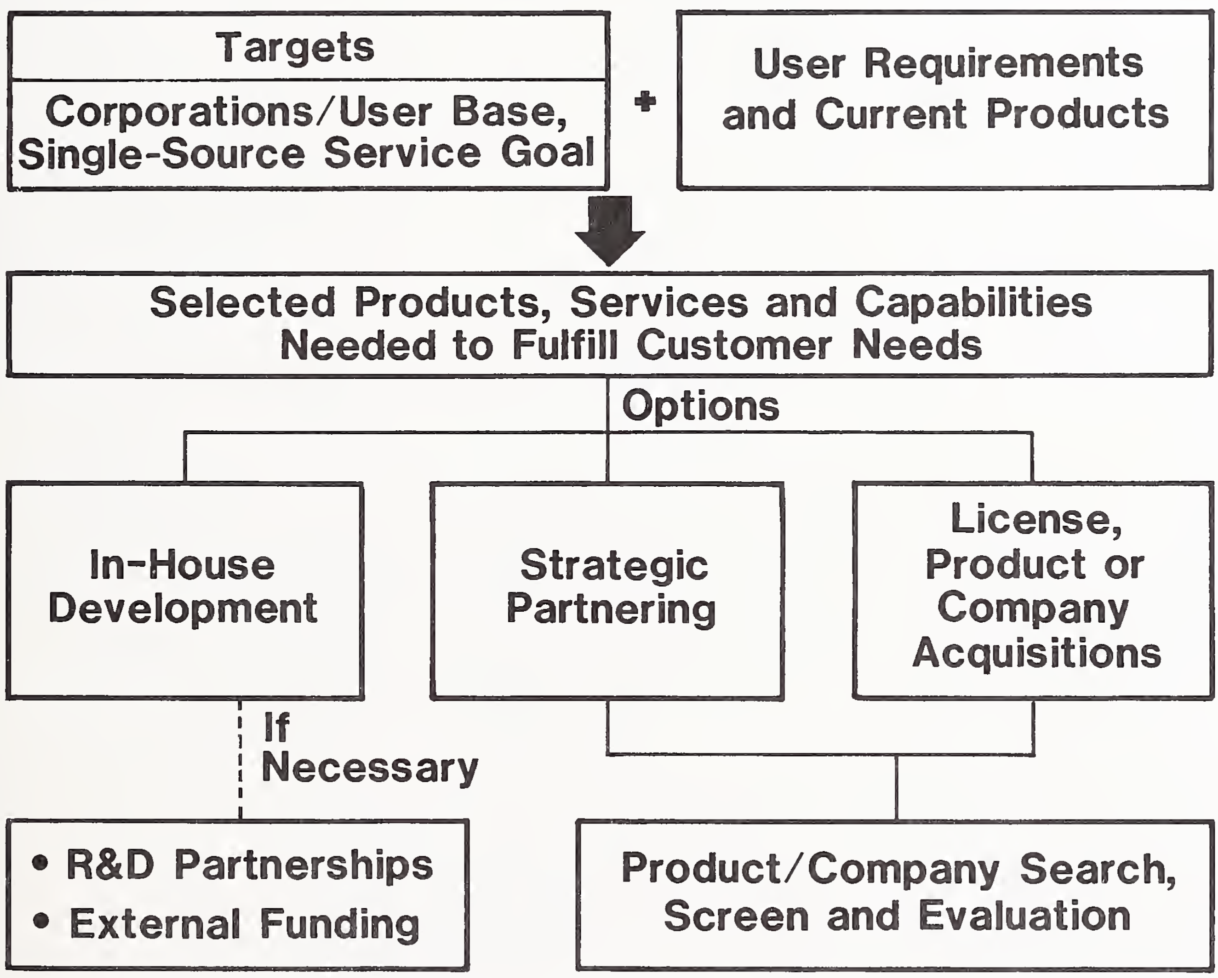
- In the past (and to a certain extent still today) acquisitions were primarily viewed as a means of creating a larger revenue base. While this is still a valid pursuit, the strategic role of selected acquisitions goes beyond mere size and should aim at providing single-source service to the customer base that represents the primary target of the information services vendor (e.g., Fortune 500 MIS departments).

- This concept uses the targeted customer base requirements to guide the vendor's selection of products, services, and capabilities needed to fulfill the role the vendor has chosen (whether these products/services are developed in-house, licensed from another vendor, purchased for distribution, or bought as part of an acquisition). Satisfying user requirements becomes the overriding goal that dictates the strategy to be pursued and, where product or company acquisitions are deemed necessary, they are sought and executed as a natural consequence of that strategy.

- Developing a full portfolio of products, services, and capabilities may have entirely different connotations from one vendor to another. For example, it may be decided that system software products represent the best short-term strategy to obtain customer control and that vertical market applications software, while a worthwhile long-term goal, can be disregarded in the interim. It is clear that in today's market this approach can no longer exclude any of the post-sales services that surround the products, e.g., training, documentation, professional services, and software maintenance.

- Exhibit II-5 encapsulates this thinking under the goal of single-source service.

SINGLE-SOURCE SERVICE: A STRATEGIC GUIDE



III IMPACT OF ACQUISITIONS ON THE INFORMATION SERVICES MARKET

III IMPACT OF ACQUISITIONS ON THE INFORMATION SERVICES MARKET

A. NATURE AND TRENDS OF INFORMATION SERVICES ACQUISITIONS, 1980-1984

- From 1980 through 1984, with the exception of 1982, the trend in the value of acquisitions has been steadily upward and in 1984 reached the all-time high of \$3.5 billion. On the surface this is a positive picture; however, the data clearly suggest a peaking in the acquisition wave:

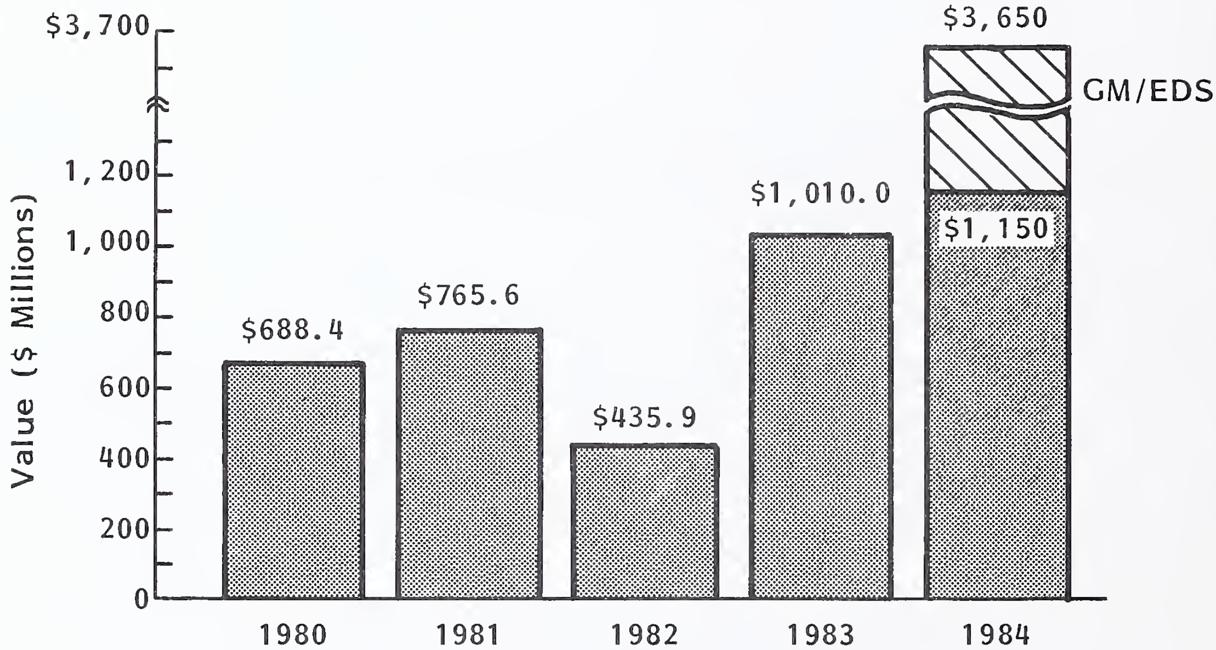
  - Excluding the gigantic GM/EDS transaction (\$2.5 billion), the value of acquisitions in 1984 rose marginally from the year-earlier value of \$1.01 billion.

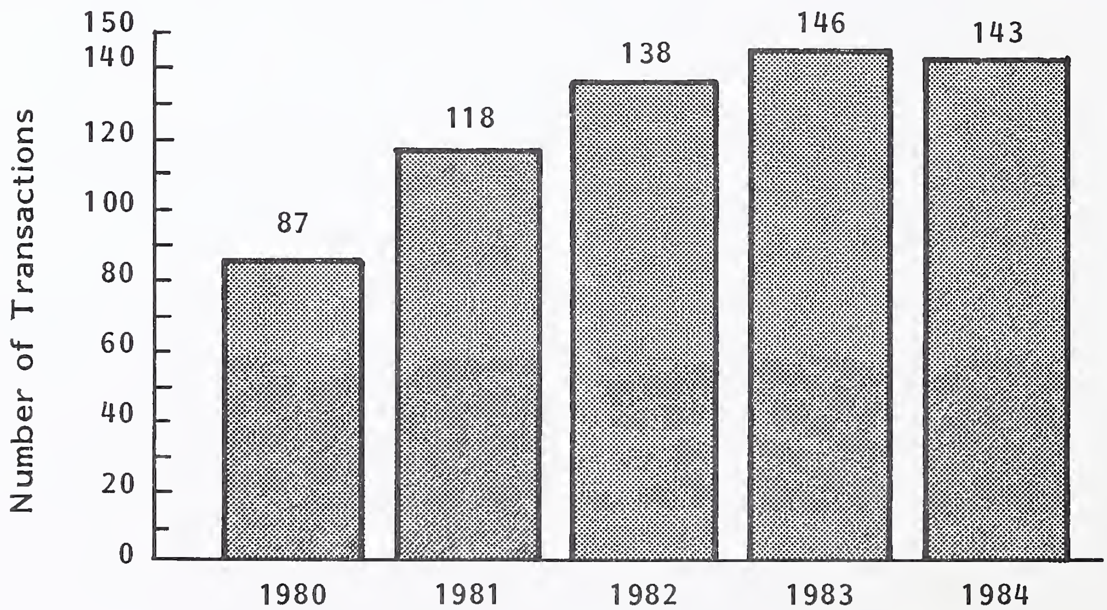
  - The number of transactions executed in 1984 fell, down 2% over 1983 (see Exhibit III-1).

- The anomaly that occurred in 1982 was due to the very small average value of the transactions, not the number. This was primarily due to the momentary infatuation of the information services industry with the personal computer and its related services. The rush into personal computer software products is an example: immature and poorly capitalized companies were snapped up in a rush to "take a position" in this rapidly developing market, more based on optimistic projections than actual business performance.

EXHIBIT III-1

COMPUTER SERVICES INDUSTRY MERGERS AND ACQUISITIONS
HISTORICAL GROWTH 1980-1984





- What has happened to slow the pace of acquisitions? First, as already noted in the executive summary, the software products market has reached a watershed:

    - The number and quality of mainframe software product companies available for acquisition has dropped: the good ones have been acquired and those that are left are either unavailable or of doubtful value.

    - The bloom is momentarily off the personal computer software companies. This is because the market which fueled their growth (individual purchases) has plateaued, while the new markets (small businesses and the large corporate market) are not accurately targeted by the current PC software companies' product lines. (See INPUT's studies on Selling Software to Corporate America and Fortune 500 Company Software Needs.)

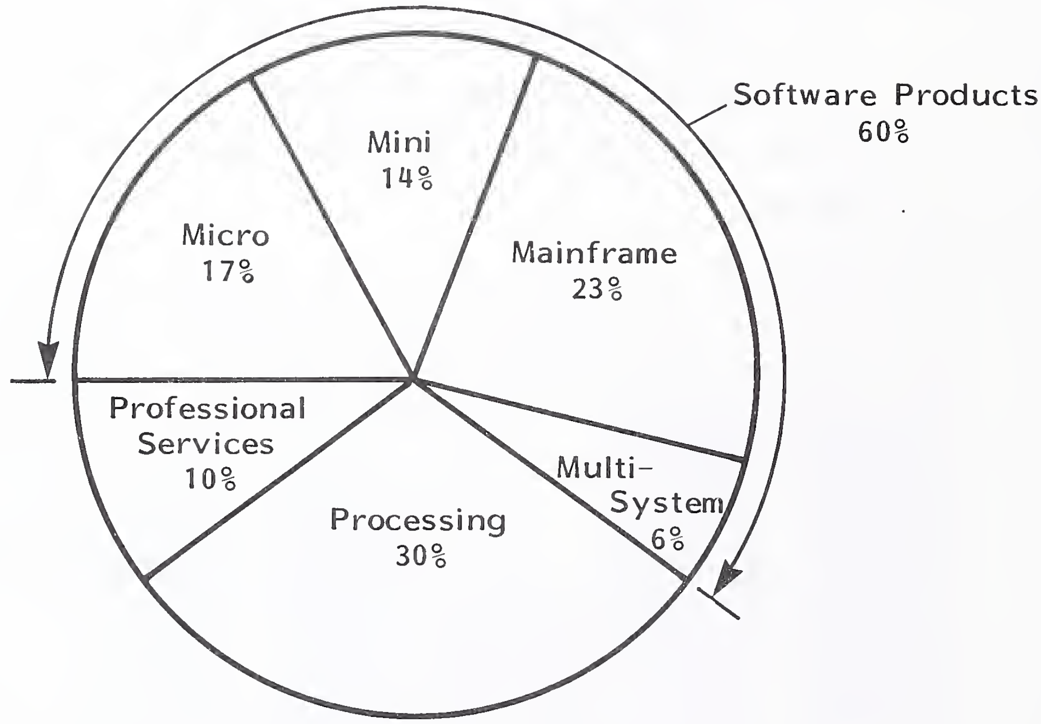
    - The minicomputer software product company has matured and is facing a rapidly growing threat from the 16-bit and 32-bit micros; they must now make a decision as to how these hardware products will affect their software product lines in terms of file structures, operating system dependencies, and roles that they will play in the total spectrum of product offerings. Exhibit III-2 provides a graphic summary.

- With such a traumatic readjustment under way in the largest component of the acquisition market (software products) it is not surprising that the acquirors are taking a breather. Is this likely to continue? INPUT does not believe that it will: there are still over 10,000 information services companies, sharing (very unequally) a $39 billion revenue base. The concentration of vendors will therefore continue.

EXHIBIT III-2

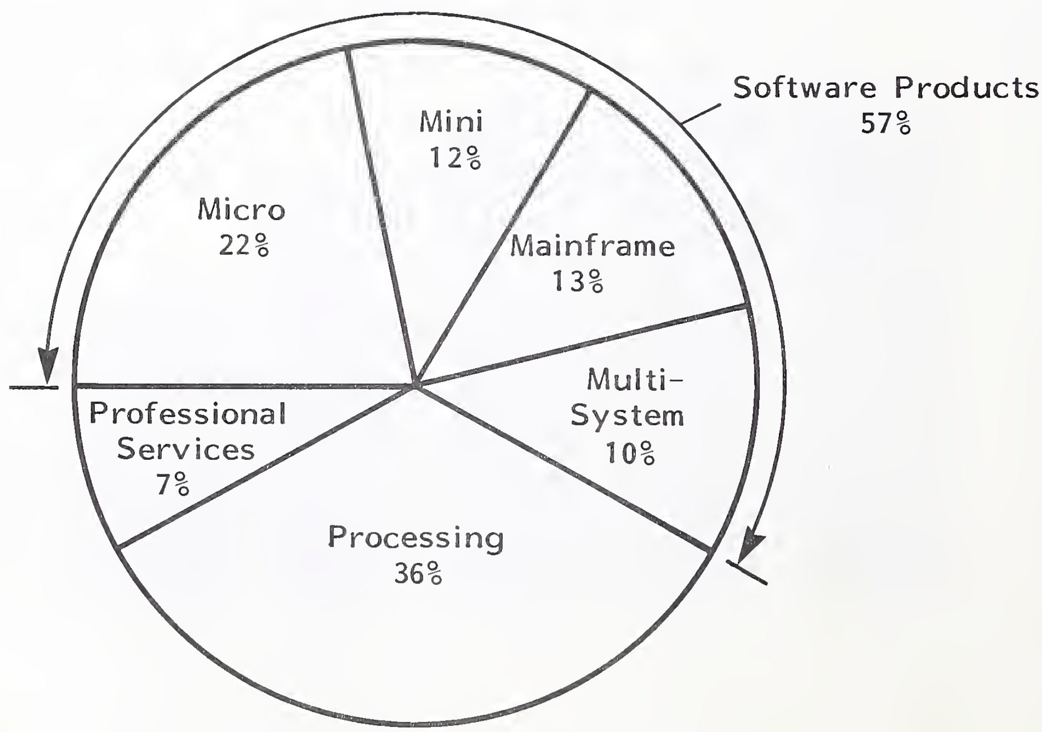
TYPE OF ACQUISITIONS
AS PERCENT OF TOTAL ACTIVITY

1983



Total 146 Transactions

1984



Total 143 Transactions

B. POTENTIAL IMPACT OF MAJOR ACQUISITION PROGRAMS ON THE INFORMATION SERVICES MARKET, 1985-1989

- The problem faced by the most active and powerful acquirors is that as their own size increases, so the ability of any one acquisition to contribute meaningfully to revenue or profit growth decreases; it takes a medium-sized company to attract an ADP now, unless the company has a particularly valuable product, service, or contract to offer. For smaller companies the problem lies in continuing to generate cash commensurate with the demands for upgraded, expanded products and services for the markets they serve, while simultaneously funding the growth in business volume.

- Acquisitions do not, however, contribute to the growth of the overall envelope of information services industry revenues and profits; indeed, it can be argued that they detract from it in the short term due to the management energy required to rationalize the product lines and restructure the organization at all levels after an acquisition. In the long term, acquisition can be expected to have a positive effect on the industry by concentrating the active resources of the vendor community in the hands of those managers who have proved, by their survival, to be the fittest.

- In view of the foregoing, let us examine the likely impact of acquisitions on the growth of the information services market over the next five years. On the face of it, acquisitions eliminate weak vendors and concentrate assets and client bases in the hands of the strong vendors. But can this be substantiated?

- An analysis of the transactions that have taken place over the last two years suggests otherwise:

    - Acquisition does not often contribute to growth. If the preacquisition growth trends of the two parties to an acquisition are extrapolated separately and then added together they very often exceed the actual performance of the merged operations.

- Even worse, there has been a spate of "foiled" acquisitions, where the acquired operation has literally "died"; whether this was due to the original owners (having made a success of the creation) cashing in and losing interest or mismanagement by the new owners is unimportant--the result is the same.

- The famed notion of "synergy" is an elusive benefit; there is evidence to suggest that earlier concepts of synergistic companies are overly simplistic and that synergy needs to be sought at deeper levels of the operations (see below).

- It is likely, therefore, that acquisitions slow the development of the information services market in the measure that they influence the market at all: in the past five years there have been 632 information services-related acquisitions (with global revenues of $4.8 million)--approximately 6% of the total number of vendors active in the marketplace. Therefore, even if all of the revenue of the acquired companies was eliminated completely, it could multiply the industry's growth in one year.

- In practice, only the growth of acquired companies is affected, not their entire revenue base. This reduces the potential impact to a worst case of less than 13%. Nevertheless, over the next five years that could add up to a worst case of $6 billion of lost revenue.

C. A NEW LOOK AT SYNERGY

- It is an attractive idea: you add two and two and get five. Very few people are immune to the lure of "something for nothing," but in practice it doesn't work out that way.

- There are many reasons why it is time to review the concept of synergy. In the first place synergistic benefits can be derived from simple things:

  - Add a new product which complements present lines (without adding new overhead or levels of management) where the existence of the new product will enhance sales of present products as well as adding its own revenue stream.

  - Expand geographic coverage and account penetration by acquiring a company (sometimes a competitor) who has already achieved what you wish to accomplish.

- More often, however, synergistic benefits are achievable only through very detailed integration of the acquired operation. Internally, the goal should be to make sure that more than one aspect of the present operations will directly benefit from the acquisition. Each negative must also be weighed (it is rare to find an acquisition with none of these).

- Externally, the impact of the acquisition should be measured for both parties: after all, the new operation is about to become part of the company, so it is important to view the transaction from the vantage point of the acquired entity. Too often this is ignored. The acquiror only sees his side of the transaction and has no interest in impact on the acquired operation (see Exhibit III-3).

- In summary, synergy is possible but is much more elusive than generally thought and requires substantial work on both sides of the transaction.

EXHIBIT III-3

ACQUISITION SYNERGY:
TWO PLUS TWO = FIVE,
(Sometimes)

INTERNALLY:

- Business Expansion (New Branches, Additional Products etc.) Should Only be Done if the Result Will Benefit Two or More Parts of the Business

EXTERNALLY:

- Mergers/Acquisitions Must Benefit Both Parties (e.g., Additional Market Presence, Product Spectrum, Customer Need Fulfillment)

D. THE HERFINDAHL-HIRSCHMAN INDEX (HHI)

- In 1982, the Justice Department released its acquisition/merger guidelines designed to allow corporate America to predict when a given acquisition or merger would be challenged under the antitrust laws. The use of these guidelines was reinforced by the issuance of the Department's revised guidelines in June 1984.

- The measure of a market concentration and the increase in that concentration that a particular transaction will cause are evaluated by the Herfindahl-Hirschman Index (HHI), which simply squares the market share of each participant in the market and sums them. The higher the resultant value has, the higher the market concentration; equally, and perhaps more critically, the greater the increase in the index caused by an acquisition, the more closely the transaction will be scrutinized. Theoretically, any increase in market concentration increases the likelihood of collision.

- The range of the HHI is zero to 10,000 but has very low values for markets that have already reached substantial concentration. For example, if five companies share a market, 30%, 25%, 20%, 15%, and 10%, the HHI is only 2,250. This makes the information services market look invulnerable to such considerations, not so. The HHI applies to each segment of the market, not to the market as a whole. For example, Anacomp's 1982 attempt to acquire DSI met Justice Department resistance because Anacomp's share of the computer output microfilm (COM) services market was adjudged to be approaching market dominance. In order to resolve DOJ objectives, DSI had to dispose of certain of its centers prior to the closing of the purchase.

- Vendors are cautioned against believing that such an index is sufficient to forecast acceptability of an intended transaction. In actuality the process by which antitrust authorities evaluate mergers and acquisitions is highly subjective.

- Define "relevant" market (i.e., a judgement evaluation of what constitutes the market within which the transaction will occur).

- Calculate the most recent market share of each major company active in the market, particularly the two that intend merging.

- Calculate the HHI pre and postacquisition and measure the increase (sum of squares pre and post, etc.).

- Compare results against the Justice Department's standards (see Exhibit III-4) and determine the presumptive legality of the transaction.

- Modify conclusions as appropriate for legal defense.

- Issue injunction, if merited.

- Clearly the key in this whole process is not the calculation of the HHI but the definition of "relevant" market; i.e., that which is included and that which is excluded. On this crucial definition, the legality of a transaction hinges.

- Such a calculation does not apply, of course, to large corporations entering the marketplace by purchasing an existing vendor that has a major market share, even if the synergy provided is likely to yield significant, even dramatic increases in that market share. This is clearly unfair to the existing market participants, but cannot be challenged.

- Other, nonstatistical factors can also modify the evaluation of a transaction and its conclusions, even when the guidelines of Exhibit III-4 are exceeded. The most important of these is whether the product or service market concerned is homogeneous. This is particularly interesting for the information services industry: is the "relevant market" software products? Financial

EXHIBIT III-4

HHI DANGER ZONES
(Revised Merger Guidelines, June 1984
U.S. Department of Justice)

IF POST-MERGER HHI IS:	AND HHI INCREASE IS:	ACTION
Below 1,000	Not Applicable	None
$\geq$1,000 $\leq$1,800	$\leq$ 100	Unlikely
	$>$ 100	Probable
$>$1,800	$\leq$50	Unlikely
	$>$50 $\leq$100	Probable
	$>$100	Certain

software only? Commercial banking software only? Mortgage loan software only? IBM-based mortgage loan software only? In most cases, the closer to vertical market the definition gets, the greater the likelihood becomes of a large transaction running into trouble.

- Another, major consideration is a practical one: will one of the parties fail if the merger does not go through? This is a significant modifier, because it applies to several key phases in a market's evolution. For example, as the infancy phase ends, consolidation sets in and many marginal vendors that have useful assets (people, technologies, products, user bases) can be acquired with no objection (the HHI is likely to be below 1000). As the market matures, acquisitions can continue up to HHI 1800 and beyond providing the acquired entity can be shown to be failing.

- In practice, information services companies have done much as they please in the past: ADP has continued to acquire payroll service companies despite the HHI guidelines being clearly exceeded. A good defense against any attempt to restrain the company in future, similar acquisitions would be to point to new startups like PAYCHEX that have emerged only recently and have grown to $40 million operations at a 40% per annum growth rate. In a highly competitive market no such thing would be possible.

E. SETTING THE PRICE: VALUATION OF INTANGIBLE ASSETS

- The dominant problem in setting a price for information services companies is the fact that their most important assets are often intangible ones (e.g., customer lists, patents). Since the final price is largely determined by the assets that change hands, it is essential to be able to value these intangible assets precisely.

- All assets must have a determinable life and value and intangibles are no different: assessing the life is usually not difficult but the valuation options can be reduced to:

  - Subjective (example: goodwill).

  - Income production capability of the asset.

  - Replacement cost.

- In the case of subjective valuations nothing need be said (except in the special case of goodwill, which is treated in the next chapter).

- Income production capability is the most useful valuation method since it deals with concrete, easily determined data that the acquisition target should have:

  - Remaining life of the asset.

  - Present value of after-tax income.

  - Depreciation schedule.

  - Any tax benefits.

- The replacement cost valuation method is highly suspect in many cases: for example, who can say (accurately) what the replacement cost of a customer list is? Moreover, to be accurate the valuation must take into account the obsolescence of the used asset, which is very hard to measure. Once again tax savings must be factored in: although it may only cost $100,000 to reproduce a given software package, the development expense can be deducted for tax purposes; therefore, the market value of the software increases (by the tax savings).

F. THE IRS' VIEW OF GOODWILL VERSUS GOING CONCERN

- "Goodwill" is defined by the IRS as the customer patronage of a business, name of the business, ownership of a trade name or brand name, location of business, and a renewal of successful operations over a prolonged period of time. Going concern is the value the buyer saves by buying a business instead of starting it from scratch.

- Both of those are intangible assets that are not depreciable and the buyer and seller have exactly opposite views when allocating an agreed upon price:

    - The seller wishes to maximize goodwill/going concern value since the difference between their original cost and the value they are sold at is treated as a capital gain.

    - The buyer wishes to minimize both since it is to his advantage to maximize the value assigned to depreciable assets, thereby offsetting taxes and generating cash flow.

- It is becoming nearly impossible to convince the IRS that there is no goodwill or going concern value (and depreciating the entire purchase price). Indeed after the 1982 U.S. Tax Court decision on Concord Control Inc., the IRS may now allocate portions of the purchase price to both items, independent of the agreement between the two parties to an acquisition. This clearly indicates that any management decision on the buyer's side must be based on a valuation and allocation of purchase price that will stand up in the eyes of the IRS, otherwise substantial loss of tax savings and cash flow may result.

IV STRATEGIC PARTNERING

IV STRATEGIC PARTNERING

- The realization by many companies, both large and small, that they could not hope to be all things to all people nor even specialize in every facet of the businesses that they have chosen to be in has led to a fairly new concept of cooperation among companies called strategic partnering. In this concept separate, legal entities (and in some rare instances competitors) are assigned a role within the overall strategic plan of a given vendor in an attempt to bring a measure of control to areas of their business that lie outside their current capabilities and resources.

A. NEED FOR STRATEGIC PARTNERING

- Across the spectrum of information services markets the accelerating pace of new technology developments has had a common effect on all markets, namely to shorten the life cycles of products and services and to narrow their window of opportunity. The average market life of a mainframe computer has dropped from seven years in 1975 to four years in 1984. In the same time-frame the average life of a minicomputer has gone from eight years to three years. Worse still the personal computer, which had practically no market at all in 1980 now has a market window of two years.

- Whole markets are now restructured within very short timeframes (as little as one year for microcomputer software), yet at the same time the complexity

of the new products and services emerging today is greater than ever. As a defense against this shortening of service/product life cycles, vendors are seeking ever-narrowing vertical markets or specialized niches to avoid competition.

- The combined thrust of this fast-moving technology, service/product complexity, and narrow vendor specialization has been to open the need for strategic partnering, allowing loosely coupled companies (with often no formal linkage or agreement binding them together) to jointly plan and serve their common markets.

- Exhibit IV-1 summarizes these trends graphically.

B. ADVANTAGES AND DISADVANTAGES OF STRATEGIC PARTNERING

- The adoption of strategic partnering as an integral part of a vendor's marketing thrust has a number of advantages and disadvantages that go in pairs. Whether this approach will be a positive or negative step for a given vendor will be determined by management strength; strategic partnering is not a prop for weak management or a panacea for internal structural weaknesses. Strongly managed companies, on the other hand, will thrive on this approach because it expands their technological market, product, and managerial horizons, while increasing the pace of growth, and access to new markets. (See Exhibit IV-2.)

- The upshot of this is that a given vendor will emerge from strategic partnering either strengthened and invigorated or in disarray: learning about your strengths is fun and productive--learning about your weaknesses in excruciating detail can be destructive and debilitating.

EXHIBIT IV-1

STRATEGIC PARTNERING:
NOT AN OPTION?

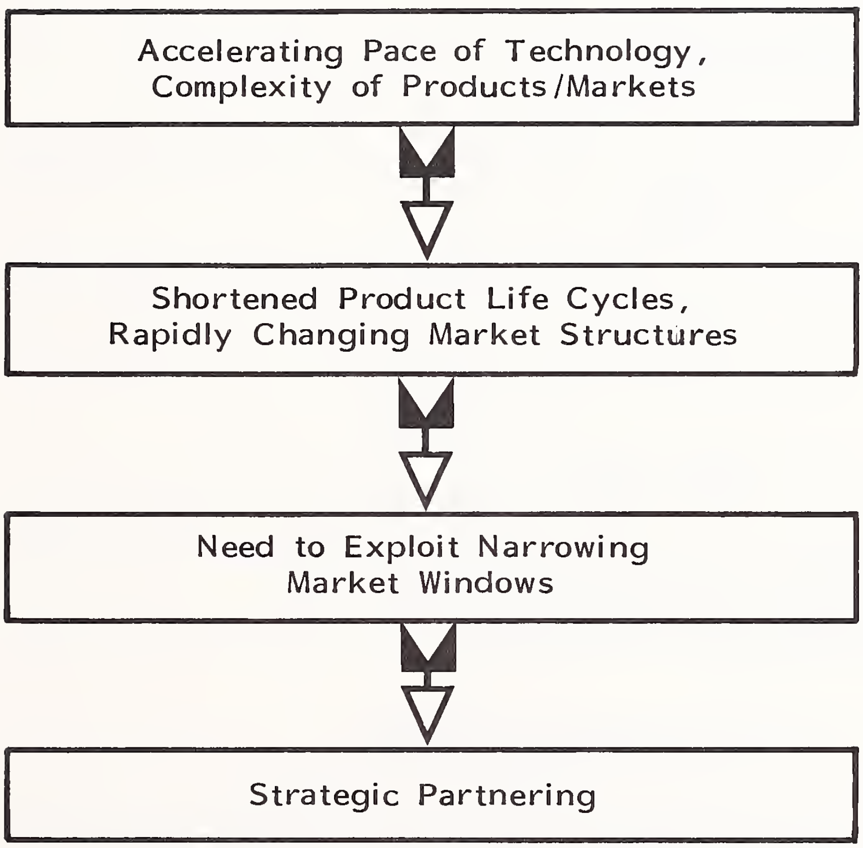


EXHIBIT IV-2

STRATEGIC PARTNERING: PROS AND CONS

ADVANTAGES

- Broader Technological, Product and Strategic Horizons
- Increased Pace of Growth
- Access to New Markets
- Lower Risk

DISADVANTAGES

- No Guidelines Available
- Continuous Dynamic Impact on Organization
- Requires Strong Strategic Plan
- Few Contractual Safeguards
- Magnifies Internal Weaknesses

- The main difference lies in the fluid, dynamic nature of strategic partnering:

    - There are no established guidelines on how to handle the intercompany relationship.

    - Each relationship is unique and the parameters governing it are constantly changing.

    - Strategic partnering relies on companies doing an excellent job at something most companies have difficulty with: strategic planning.

    - Strategic partnering has such a profound effect on a company that it may alter the organizational structure on an ongoing basis, as the partnership develops.

    - Such relationships are hard to cover by a formal, binding contract. As a result, their success or failure is determined by the kind of chemistry established between company principals and on their willingness to share the essence of their individual success, with no guarantees that such sharing will result in any benefit for themselves.

- Clearly, this requires a lot of self-confidence, managerial strength, and flexibility, which are not easily found. But the greater the degree of sharing, the greater the potential for benefits to both parties. The actual success of the strategic partnering chosen, however, lies in the accuracy of the evaluation of the marketplace and the strategic plan followed.

C. STRATEGIC PARTNERING: OPTIONS AT ALL LEVELS

- Strategic partnering is not an "all or nothing" proposition: it can be used as a limited support option at every level of the corporation, e.g., capital requirements, marketing, sales, service, and R&D (see Exhibit IV-3).

EXHIBIT IV-3

STRATEGIC PARTNERING WITH THE OUTSIDE WORLD

Finance:	Venture Capital, "Big Brother" Sponsor
Marketing:	Packaging, Pricing, Positioning
Sales:	Distribution Channels, Manpower, Wholesale/Retail Outlets
Service:	Post Sales Support
R&D:	Partnerships

Where Possible, Outside the Company Structure;
If Not, With Minor Penetration

- In the capital requirements area many options (and variations) are open. In each case, it is important that the source have more to offer than just capital.

  - Making use of a big brother sponsor makes sense where the brother in question can assist in accessing key markets and accounts, or can become a prestige user (reference account) in his own right. The benefit derived by the brother may be purely monetary (return on capital), risk appreciation (options on a minority share in the company), or early priority access to the product/service being developed.

  - Venture capital can be a variation on this theme if appropriately structured.

- In the marketing area, it has become apparent in innumerable information services markets that the key to profits is marketing muscle. This is not merely a question of knowledge. Marketing strength relies on packaging, service positioning, vertical market targeting, technique, and manpower. Finding the correct distribution channel(s) may entail an alliance with a partner who is long on all of these but short on product/service. One excellent opportunity that often occurs concerns a competitor whose product/service is technically inferior but whose marketing strength is high; an alliance with a company that has superior products/services but is weak on marketing can benefit both parties.

- A very important part of customer satisfaction (and therefore repeat sales) is post-sales support. Many vendors have retained the erroneous notion that hardware and software maintenance and support are (1) separate functions, serviced by two separate service organizations, and (2) not part of post-sales support proper, which includes education/training, professional services (customized software, system design, consulting), documentation, etc. Indeed, the latter are organizationally attached to marketing, while the former are left in the hands of the product manufacturer.

- First, customers' needs now call for single source (or "one-call") maintenance: this means that all elements of a service or product, whether hardware or software, must be supported by a single service unit. Secondly, the profit potential for such activities is enormous, but best left to professionals who understand the marketplace and the operational aspects of maintenance and support.

- It is therefore desirable that information service vendors seek to establish tight control over the maintenance and support revenues coming from their user base by using a third-party maintenance vendor: one who will offer cheaper maintenance rates than the original product manufacturer and one who can be controlled through a detailed contractual relationship. To emphasize once again: this applies to software as well as to hardware.

- In the area of research and development, tax shelters have been exploited for some time and remain viable so long as there is a substantial element of risk attached to the end product. (Where no such risk applies, the money interest is not tax-deductible.) A more recent twist to this approach involves setting up a partnering in which the vendor and high-potential prospects for the product/service in development pool their resources. Usually this entails the prospects providing end-user expertise (requirements specifications) and the vendors providing the technical resources necessary for the product/service development. If successful, the vendor then purchases the rights to the product, on completion, and the projects obtain early installation at reduced or preferential prices.

- In all of these areas of opportunity, the key to a successful relationship is finding a partner that can perceive the benefits the alliance will bring, while preserving the independence of each. This entails a substantial element of risk and mutual trust, not only in the abilities of the respective partners but also in the ultimate goals that each is pursuing. An arm's length relationship is best where possible, since it preserves the identity, freedom of choice, and

image of the partners. However, many will find it necessary to conclude a closer agreement involving mutual minority shareholdings representing commitment and interest in the growth and profitability of the partner.

D. PROMINENT EXAMPLES OF STRATEGIC PARTNERING

- The most significant examples of SP do not concern small, weak companies who do not have the resources to compete in the market; on the contrary, the most successful vendors in these activities are some of the largest concerns in the computer industry, both domestically and internationally.

- IBM, given its size and its unparalleled resources (both human and financial), might seem able to cover all of its development and sales requirements with its own products and staff. However, the company has been increasingly active in promoting partnerships and license agreements with large and small companies that can assist in its coverage of the vast number of opportunities the company sees before it (Exhibit IV-4):

  - In the area of technology development and manufacture, IBM has multiplied its associations with companies such as TI (MOS/VLSI, and LAN circuitry) and Intel (in which IBM has taken a 20% equity interest).

  - In the area of telecommunications it has agreements with Mitel (digital switch products), Comsat General/Aetna (satellite business systems), SYTEK (LAN), and ROLM (CBX, PBX), in which IBM originally took a 20% interest and has purchased the company outright.

  - In the area of microcomputer software IBM has dozens of agreements with system software vendors and application software vendors.

EXHIBIT IV-4

EXAMPLE 1: IBM

Intel

Purchase Design and Process
for 64k DRAM using HMOS II
Purchase of 64k RAMs
Purchase of 20% of Intel Stock

Texas Instruments

Develop MOS VLSI
LAN Circuits

Mitel

Develop Digital
Switch Products

Matsushita

License Agreement to
Manufacture Video
Text Terminals

Comsat General and Aetna

Satellite Business
Systems Partnerships

ROLM

CBX, PBX,
Outright Purchase

6,000 Retail Stores

Home/Business PCs

- In the area of retail sales, IBM has dealer/distributor agreements with hundreds of VARs (value-added resellers or turnkey system vendors) and thousands of retail stores (for the IBM PC, XT, and AT).

- The nature and scope of IBM's strategic partnerships is broad and ongoing, and demonstrates IBM's eagerness to leverage the capabilities of vendors where an area of expertise is evident that matches a company's requirement.

- The best international example of this trend is NV Philips, the Dutch conglomerate. Similar concerns and agreements emerge from an analysis of this company (Exhibit IV-5):

  - In the technology area, Intel, RCA, and Fairchild have concluded agreements with Philips, principally for bipolar circuitry and telecommunications-related products.

  - In the data communications area, Motorola, Intel, and AT&T, mainly circuitry.

  - Specific products with Siemens and CIT-Alcatel.

- The emphasis is on the development of new products and sharing the risks with large groups, whenever Philips feels that its own internal development capabilities are either nonexistent or insufficient.

- More generically, OEM sales and support are an excellent example of strategic partnering: using the customization, sales and support capabilities of a network of independent turnkey vendors that develop their own software products and their own user base. There are two kinds of OEM, downstream operations and upstream operations (see Exhibit IV-6).

- DEC is an excellent example of downstream operations, where a large manufacturer delegates part of its sales/support to smaller, independent com-

EXHIBIT IV-5

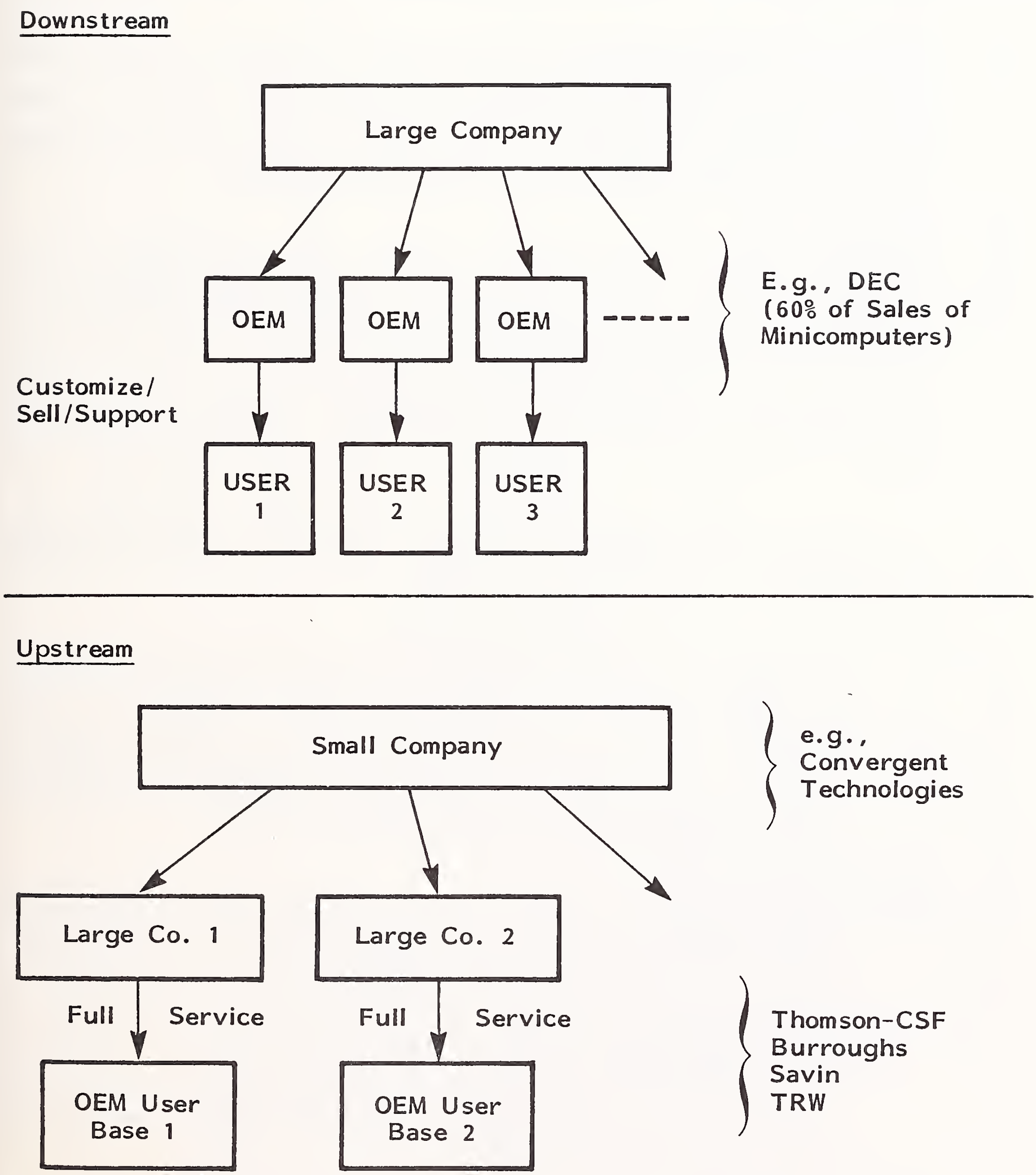
EXAMPLE 2: NV PHILIPS

Siemens
Develop Voice Synthesis

AT&T Discussion	CIT-Alcatel
Develop Digital Voice and Data Communication Systems for Outside U.S.	Cellular Mobile Telephone Marketing and Product Sharing
Fairchild	**Intel**
Develop Fast Bipolar TTL Circuits	CMOS Microcontroller Technology for Networking
RCA	**Motorola**
Develop CMOS High-Speed Data Communications	Data Communication Circuit Development for 68000 Family

EXHIBIT IV-6

EXAMPLE 3: OEMing



panies. Approximately 60% of DEC's sales are executed this way, worldwide. The advantage has been the rapid development of sales volume that DEC's own manpower resources could not have accomplished, but also the growth of an increasing volume of post-sales support dollars which DEC does not participate in.

- Convergent Technologies is the best example of an upstream operation where a small company (less than $10 million three years ago) leverages the sales, support, and service capabilities of very large companies (in this case Burroughs, Thomson-CSF, TRW, etc.) with their own user bases.

- The same principle of strategic partnering can be applied to a single activity in the post-sales area. The example chosen in Exhibit IV-7 is that of subcontracting the maintenance of hardware and/or software to a third-party maintenance company. This usually requires that the third party offer a contract for single-source maintenance of multiple-vendor systems at a single user site.

- Two categories of advantages are obtained, tactical (short-term) and strategic (long-term):

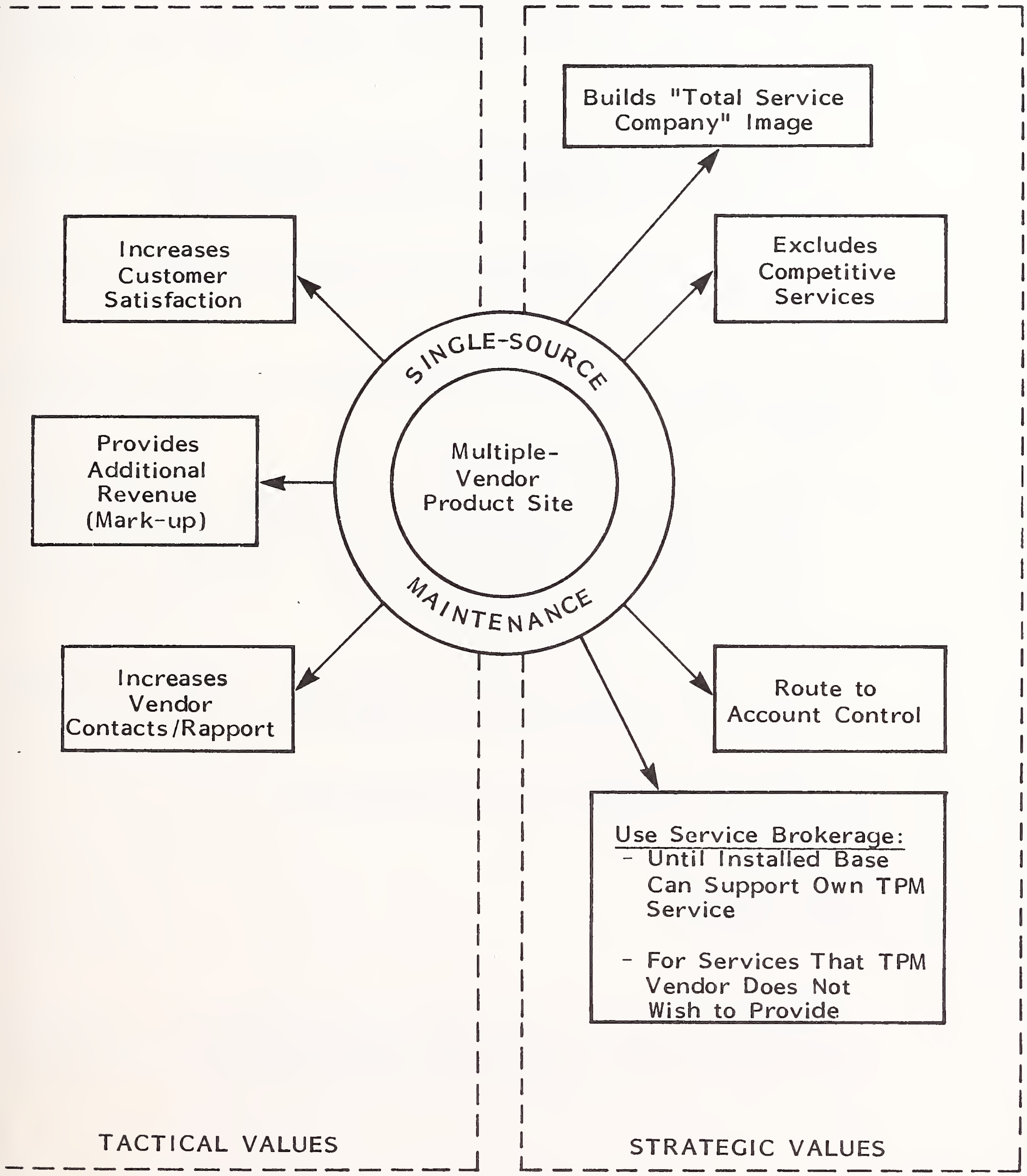
  - In the short term the advantages include improved customer satisfaction and increased vendor/client contacts; the value of the latter resides in the fact that, increasingly, hardware products are becoming more reliable, thereby diminishing the number of vendor/client contacts which impacts the vendor/client relationship.

  - In the long term the advantages are more substantial; the single-source service contact eliminates the competitive presence of other hardware, software, and service vendors, which leads to account control. In addition, it is not necessary to delegate the service at all, even if the maintenance services required are not available directly. Any and all of these services can be brokered to outside suppliers, conserving the control of the client interface.

EXHIBIT IV-7

EXAMPLE 4:

STRATEGIC AND TACTICAL ADVANTAGES OF SINGLE-SOURCE MAINTENANCE



E. LESS IS MORE

- Within the options offered by strategic partnering, the role of each company involved can be more narrowly defined, which allows a better, more focused use of the company's resources (manpower, capital). Other, very desirable benefits can be derived:

    - Product development (and the attendant risks) can be limited to core products, without limiting the role played by the company.

    - Company strategy, workforce direction and market image are all more narrowly focused.

- This is, in effect, a reversal of the market segmentation that has been popular for the last ten years:

    - Rather than expand sales by increased presence (i.e., by multiplication of the segments served) the emphasis is on increased penetration of existing segments, principally by product complexity and product quality.

    - The reliance on partners for an expanded geographic (or product) coverage leverages sales without requiring substantial resources.

- This is clearly a case where less is more (Exhibit IV-8).

F. SHARE THE PIE

- A fundamental element in all strategic partnering operations concerns the ability of each partner to clearly see how his/her personal success is linked to

EXHIBIT IV-8

LESS IS MORE

- Direct Own Resources to Finite Goals:
  - Clarifies Market Image
  - Simplifies Company Strategy
  - Unifies Workforce
  - Limits Product Development
- Market Segmentation in Reverse:
  - Limited Geographic Coverage
  - Limited Prospect Targets
  - Excellence in What You Do

the success of the partnership. This is true whether for internal operations (where the "strategic partners" are the key personnel that are necessary for success) or external operations (where the partners are the external, independent companies that compose the partnership).

- In each case it is essential that each partner, internal or external, can see that a resonable distribution of profits or allocation of margins is made. It is here that too many mistakes are made.

  - If the distribution of margins/profits is unequal or disproportionate to the effort expended by each partner then the chances are the partnership will wither.

  - At the limit, it may push potential (or existing) partners into the ranks of the competition, by showing them how good the margins are and denying them access to a reasonable share thereof.

- Exhibit IV-9 summarizes the main points.

G. SHARING: AN INTEGRAL PART OF THE INFORMATION SERVICES STRATEGY FOR THE 1990S

- Clearly, strategic partnering is not for everybody. It is essential that companies approaching SP should have very strong management that knows where it's going. Without such strength it is wiser to avoid SP. Management strength is not enough: a well-defined strength in technology and/or resources and/or products associated with a detailed strategic plan are mandatory prior to seeking a partner--if you have nothing to share, you are not a good partner.

- The strains on management that will be added through the use of SP are enormous. It is necessary to manage not just the company itself, but also the

EXHIBIT IV-9

SHARE THE PIE

- Internally:
  - Motivates Workforce with a Share in the Business
  - Impacts Cost Control, Customer Service, Product Quality and Sales Agressiveness
  - Improves Worker/Management Relations at Key Time: When Productivity can Make Biggest Impact

- Externally:
  - Motivates Partners in Distribution Chain by Making Them Partners in Growth Opportunity
  - Don't Skimp on Margins!

wider market envelope covered by the partnership. The success of the venture depends on the willingness of the partners to share their strengths and to take care of their own weaknesses.

- The corollary is that there is a clear loss of individual company control, which goes against the grain of many corporate managers. It may even be the exact opposite of a current program of extended vertical market integration (where the company strives to be competent in all areas of its chosen market).

- The second major difficulty of SP is the ongoing dynamic relationship, which requires constant monitoring and may affect the structure of each of the companies involved. This may be anathema for the management structures that have career paths attached to a more limited market presence.

- Nevertheless, it is highly desirable for small to medium companies that need a large market presence or simply a faster exploitation of a market window to be sure that, if the market approach requires a team of companies, they are not the last to begin preparing themselves for SP--nor the last to seek compatible partners.

- Exhibit IV-10 summarizes the main points.

EXHIBIT IV-10

SHARE YOUR { TECHNOLOGY / STRATEGY / RESOURCES } TO ATTAIN { PRODUCTS / MARKETS / PROFITS }

- Strategic Partnering Calls for Commitment:

  - Share Your Strategy (Sometimes with Competitors): Mutual Dependency of Partners

  - Diminish Your Control: (The Anti-thesis of Vertical Integration Where the Company Strives to be Competent in All Areas)

  - Keep Partnership Relations Under Review: Nonstop Evaluation, Anticipate Changes Needed

- "If Not, You May End Up Playing Singles in a Doubles Match"

V ACQUISITION CASE STUDIES

V ACQUISITION CASE STUDIES

- The following is a series of vendor profiles that examines the impact of acquisition on company growth, the level(s) of management involved in deal evaluation, time involved, basis for evaluation, types of companies sought, competition encountered, and difficulties that arise post-acquisition.

A. SUMMARY ANALYSIS

- The majority of acquirors do their own acquisition searches; the only value to brokers or other finders, according to the companies contacted, is the number of companies that they know are available (which cuts down search time and avoids missing potential prospects). Helping two parties find a common, mutually satisfactory middle ground at a fair price is what brokers feel they do best.

- Very often, acquisition search and evaluation is done by company CEOs. While it is necessary for them to be involved in proposals, final valuations, and closer agreements, it is desirable that CEOs not do search/evaluation. Their energies are more appropriately focused on company operations, leaving search and evaluation to corporate planning or (in the case of heavy, ongoing acquisition programs) to a dedicated, specialist team.

- Exhibit V-1 shows the dramatic falloff between contacts with potential acquisitions (i.e., companies that fit the overall profile established by the acquiror) and the final acquisitions accomplished. The highest hit rate found in INPUT's study was 7% (and was achieved by a dedicated, specialist team). Very often the end result is--nil! Many companies "flirt" with acquisitions with no real intent of live acquisitions--they want to know what's going on and participate in the deal flow, but when faced with a decision, invariably back away. For serious-minded companies, however, the hit rate seems to be around 20 (contacts) to one (acquisition).

- With regard to the cost involved in search, evaluation, negotiation, and close, their seem to be two golden rules:

  - Whatever cost you budget for will always be exceeded.

  - The cost of one bad deal will make any costs look insignificant.

- Clearly, acquisition is a high-risk business, with more chances of going wrong than succeeding. One frequently found judgmental error concerns the overestimation by the acquiror of his ability to improve the prospects/products/success rate of the acquisition target.

- The following case studies examine the strategy and experience of four vendors active in the acquisition of information services companies. Each has an interesting story to tell, different from any other but raising important issues of a tactical and strategic nature.

- Following the acquiror profiles is a profile of an acquired company--the other side of the fence. Learning from experience, the acquired company analyzes what they would do differently if they had the opportunity--a useful insight for acquirors and acquirees alike.

EXHIBIT V-1

RATE OF ACQUISITIONS

COMPANY	CONTACTS	CONSIDERED	PROPOSALS	ACQUISITIONS
A	100	14	9	7
B	60	25	5	1
C	150	50	2	2
D	10	6	3	-

Acquisitions $\leqslant$ 7% of Companies Contacted

B. ACQUIROR PROFILE A: "STICK TO YOUR KNITTING"

- Acquiror A is a very large processing services vendor that has made over 30 acquisitions during the period from 1980 to 1985. The aggregate size of these acquisitions represent over 10% of the company's current revenue and, according to the company representative interviewed, are a key factor in the company's average annual revenue and profit growth rate of over 18%. A growth-through-acquisitions strategy is firmly in place, as are the policies and procedures to make these sound investments.

- The entire process is decentralized, with the acquiring authority residing in the individual profit centers and regulated by the profit center's business goals and individual managers' incentive compensation packages. Corporate responsibility for oversight is handled by the corporate development officer who ensures that the deals put together by the profit center managers are "good deals."

- The development officer has no responsibility for determining that acquisition targets brought forth by the profit centers are the "best deals." The corporate staff, including the CEO, does assist in identifying companies that might be good acquisition candidates in individual profit centers.

- It is a buyer's market, with over 100 companies approaching this acquiror annually. Of these would-be acquirees, discussions are held with approximately 40%, formal evaluations are made of 15%, acquisition proposals are written for 7%, and closes achieved on approximately 5%. As a practice, the company believes it writes 30% more proposals than it closes and believes this to be good "insurance" for the company's acquisition plans. In general, searches and evaluations are completed in-house. This is done for two reasons:

- With so much responsibility residing with the individual profit center manager, acquisition targets are generally known by them.

- Outside finders and brokers, in this company's experience, are not able to fully understand the needs and strategies of the acquiror. Brokers and finders are seen by the company as a good source of general industry information and do help in the acquisition process by educating the potential acquiree.

- The structure and functions of the acquisition team depend on the needs of the acquiring profit center: searches are generally conducted, and targets brought to light by the individual profit centers. This is an ongoing activity that varies in intensity according to the individual managers' revenue and profit "needs" to meet their "numbers."

- On occasion, the corporate staff does provide leads to the individual managers. These leads may be "qualified" by corporate staff, especially when a fit within the current operating structure is not entirely obvious.

  - Evaluations also are conducted within the profit center with informal assessments made by top management. Corporate development does participate in the evaluation process, primarily assessing the congruence between the proposed deal and the overall direction and strategies of the corporation. It is at this point that the financial and legal staffs get involved in reviewing these respective aspects of the proposed deal.

  - With large deals top management and the board of directors must provide approval on negotiations and closes, but again, most of the negotiations are handled by the profit center manager with support from the corporation's technical, financial, and legal staffs.

- The elapsed time of an acquisition using these procedures has historically ranged from one week to several months. The variables that impact the duration seem to be the level of "intimacy" the acquiror has with the acquiree and the acquiree's business and the willingness of the acquiree to accept the terms of the acquisition. On this latter factor, it sometimes happens that some aspect of the deal is not acceptable to the acquiree and a protracted period of negotiation, both active and latent, ensues.

- The indirect costs of the acquisition process vary with these same two factors. And, like other acquiring corporations, these costs are not easily documented. Rather, the focus is on the cost of a bad deal, one of which could offset all the costs of the process.

- The company did note, however, that most of the costs are for personnel (85%) or travel (15%) with no outside costs for brokers, finders, attorneys, etc. Interestingly, even though the responsibility for acquisitions rests with the profit centers, the corporate staff does not charge back their personnel or T&E costs to the individual centers, preferring to budget for them as a necessary function of corporate management.

- Direct costs of acquisitions have typically involved cash (95% of the acquisitions) with the remaining acquisitions completed as stock deals. Earn outs ranging from one to five years are always used.

- At the core of the valuation philosophy of this acquiror are two premises:

  - Don't buy companies with large margins, for these margins will likely drop as the company grows.

  - Do buy companies for the potential that the acquiror believes can be realized under the acquiror's management (which usually proves to be illusory).

- This is not to say that revenue, profit, and net worth are not important to this acquiror. Indeed, these factors rank first when the target acquisition is in the same business as the acquiror. But, ranking a close second--first in importance if the acquiree represents a new business--is the potential growth impact on the company. Ranked third in valuation importance are the acquiree's products and services and, fourth, the geographic location and coverage of the target company.

- Like other companies interviewed, this acquiror recognizes that there are no sure things in an acquisition. To compensate for the risks and the unknowns and to objectify the process, the company relies on the notion of a "believable story." That is, when all the positives and negatives of the target are spelled out--its financials, its current markets, its products, its obvious and hidden assets--does it tell a credible story of how the acquiror could dominate the particular market? If the story is easily accepted, the acquisition is probably a good one. But if there is too much "if this happens, then..." the acquisition may not be the best opportunity.

- With its active history of acquisitions, this company has uncovered many issues that detract from a believable "story":

    - Thinking that the acquiror has the ability to change the target company to be what the acquiror wants them to be.

    - Thinking that the target will fulfill a strategy when, in reality, the target can't do what was thought or there is no follow-through on the part of the acquiror to implement the strategy.

    - Thinking that the key individuals in the target company will be motivated to succeed under the new wing or even thinking that these individuals will stay with the parent after the acquisition.

- Thinking that the current business strength and know-how of the acquiror can be applied to a new business. As the company representative stated, "we're learning to stick to our knitting."

C. ACQUIROR PROFILE B: SYNERGISM IN AN ENTROPIC ENVIRONMENT

- The banking industry has traditionally had responsibility for large volumes of transaction processing as a service to its customers. Large data centers with extensive investments in hardware, software and personnel are a frequent part of the banking environment.

- Now, with an ongoing deregulation of the banking industry, banks are looking at these investments as a medium for new revenue streams as information services vendors. For banks, information services vendors are also attractive as a means of controlling market activity or financial transactions within specific businesses. It is not surprising, then, that the acquisition of information services vendors is a strategy being employed to make these investments pay off.

- The company interviewed for this profile is a large bank currently in the process of investigating acquisitions that will grow their information services offerings and capabilities.

- Acquisition activity is generally managed by the corporate business development group without outside help from finders, brokers, or other advisors. The activities are conducted either at the direction of the corporate development manager on behalf of the corporate executives or as a support service to a particular business unit within the bank.

- The staff knows the vendors and keeps abreast of the information services industry through research reports and the trade press. Only when anonymity

is critical are outside consultants used in acquisiton searches and evaluations. In fact, the business development group includes personnel with technical and financial skills so that outside individuals need not be involved.

- This group does not negotiate or close acquisitions, these functions being handled by top corporate management and corporate attorneys. As with other companies, indirect acquisition costs are not tracked by the company, perhaps because, as the interviewee pointed out, "these costs are always more than you think."

- The actual costs of the acquisition of information services vendors are typically 20-60% over market value and 15-20 times earnings. Still, from a valuation point of view for this acquiror, the most important issues are synergy, the impact of the acquisition on ROE, and earnings per share.

- The issue of synergy seems uppermost in the mind of this acquiror. As the representative pointed out, "large acquisitions in 'semi-related' fields never make good investments." There must be true synergism where the two companies leverage the strengths of the other in some harmonious way. Given that, according to the company, information services vendors are overpriced and hard to assimilate, their current strategy is moving more toward the acquisition of specific products, services, or capabilities that add value to the parent. Related product lines, additions to existing products, and the ability to expand existing marketing channels have all become key issues in evaluating acquisition targets. In fact, this acquiror does not seem too far removed from a strategy of joint ventures or internal development for growth; buying only when timing is critical.

D. ACQUIROR PROFILE C: ASSET STRIPPING—A POOR ACQUISITION STRATEGY

- Acquisition targets sometimes appear to the acquiror as a collection of assets, tangible and intangible, that could readily be used to fill holes in a company's competitive position. These would-be acquirors "asset strip" the acquired company, using the assets they need and disposing of the remainder through sale, integration, or "natural death by lack of nurturing." The liabilities of this strategy were learned the hard way by this software products company.

- Acquisition activity is the responsibility of the chief planning officer, who spends approximately 50% of job time on acquisitions. Although the planner works without a staff, corporate staff members, including the CEO, CFO, and EVPs are available to assist in the search, evaluation, negotiation, and close. No outside agents are used except in those rare cases where a broker or finder could more readily conduct the background investigation.

- Leads on acquisition targets are readily available from "opportunity hunters," especially investment bankers. Contact activity is heavy, usually involving ten net contacts a week and a level of activity that ensures five to six candidates in consideration at any one time. From this list of approximately 50 candidates at any one time, one or two are pursued to the level of a formal evaluation and, in some cases, a proposal.

- The process is generally short, ranging from one week to three to four months. This latter time is the result of protracted negotiations due to terms that are not acceptable to one or both of the parties. Protracted negotiations usually are less intensive than those that occur in a short time period; both parties try to use time as a leverage for their demands.

- Costs to the acquiror are not recorded but are believed to be allocated as 85% personnel and 15% T&E.

- Valuation during the asset-stripping phase of the company's acquisition process was based on the company's needs for expertise. During this period each target was examined on the basis of what the expert could do for the acquiror. The more obvious and direct the benefits, the higher the evaluation.

- The problems with this strategy were:

  - The acquiror overestimated the expertise being acquired.

  - The personnel with the expertise were difficult to retain:

    - The entrepreneur/founder was selling the business because he/she couldn't manage a large company and had no interest in doing the same for the parent.

    - The founder had no interest in managing a marketing-oriented company.

    - The staff acquired had no commitment to the new parent nor any motivation beyond a paycheck.

- When this company realized that they were not entirely satisfied with their own acquisitions, several factors changed to put the company on the right course:

  - They began to look to acquisition candidates for "total solutions"; that is, companies that were not only strong enough to stand on their own but also to add significant value to the parent through a particular product line, market niche, sales force network, etc.

  - Synergism became a must. Plans were developed to ensure that the strength of each party was fully utilized for the benefit of the other.

- The probability of retention of expertise was not only closely assessed but positively impacted by seeking the commitment of the staff before the acquisition.

- The acquirors became more objective, even cynical, about the target company's ability to meet their needs.

- Acquisition targets were expected to accelerate growth, not just help achieve the planned growth goals.

- Product lines were expected to have a sales history of at least $250,000 in revenue per year.

• Since these changes were made in the acquisition strategy, the company has made fewer--but better--acquisitions and is well-positioned as an information services vendor.

E. ACQUIROR PROFILE D: EARN-OUTS AND THE CLOSELY HELD TARGET

• The acquiror's grip on the acquired company is among the most sensitive and complex issues of acquisition. A tight grip stifles the entrepreneurial spirit and creativity that made the company so attractive in the first place, but a loose grip allows both the acquired and the acquiror to wander away from their original objectives of growth through synergism and the leveraging of each other's special capabilities.

• This issue was at the core of this acquiror during the early years of its existence. The acquiror was itself born as an in-house data processing center. When it became a commercial enterprise, the parent feared that the current managers lacked the entrepreneurial savvy and spirit to grow the new

company. So, outside management was brought on through company acquisitions and management earn-outs. But each time, the parent could not let go and the child suffered. Finally, the cords to the parent were cut and the company acquired via a buyout by the current management.

- The "scars" of these early acquisition experiences had inhibited recent acquisition activity. While six companies were acquired in the 1976-1980 period, only one product line has been acquired since. The company does look, having made ten contacts this fiscal year--formally evaluating six of them, and submitting proposals to three. But the Chairman/CEO has chosen a very conservative approach and intends to find the "right" company to acquire.

- This search has generally been conducted by the Chairman, with some support from the immediate staff and, on occasion, some support from outside consultants and brokers in uncovering candidates and presenting information on each. With so few personnel involved, the elapsed time is understandably long--six to seven months. (In one divestiture made by this company the process took over one year as the acquiring company "pruned" the weak customers from the customer base with due diligence.)

- The valuation of a target is usually made in terms of its type of service, growth potential, maturity of its market, and the type of hardware. This acquiror expects the target to have a proven track record of market share, proven product, and customer base. And, the company needs to be in a complementary market.

- As mentioned above, earn-outs have frequently been used in the past and will continue to be used. However, their intent and implementation will likely change as the acquiror has more experience in keeping new entrepreneurs interested and believes it needs only one to two years for an earn-out versus the previous two to three years. Current management thinking is that the earn-out is a means to ensure that the new company is well cared for during a transition period in which the acquiror learns to run the company. As the

company noted, "if you can't buy it after a year, perhaps you shouldn't have bought it."

F. PROFILE OF AN ACQUIRED COMPANY: MARRIAGE IS NOT ALWAYS WHAT IT IS SUPPOSED TO BE

- One reason that companies sometimes want to be acquired is for the new opportunities that are envisioned. A new source of capital, being part of a new product or market, or even association with a "rising star" are frequently mentioned as motivators of the acquiree. But all too often things are not always as they are perceived or portrayed during the courting period of an acquisition.

- This company was acquired by its first suitor, who approached the CEO with an offer he couldn't refuse. A chance to be part of a new and exciting venture and to get out from under the day-to-day management made the company agree to the first real offer. There were three other contacts made by acquiring companies after word leaked that the company was for sale, but formal proposals were not entertained; a regret that the seller now has.

- The entire process took a mere four months, and during that time the negotiations were so extensive that it took 50% of the owner's time and gave him no time to sit back and carefully assess the buyer or his own reasons for selling. No brokers were used by either party, further removing the seller from the advice and financial counsel of outsiders.

- Since the seller had had no thought of being acquired before he was first approached, he had little forethought about the value of his company. He negotiated the best deal at the time based on a multiple of earnings and revenue per employee, but now would value his company (and any offer) differently if an opportunity to sell came along. His current rankings of the importance of individual and corporate benefits are:

- Cash/tradeable stock.

- Cash infusion into the company.

- Market expansion.

- National sales force.

- Deferred compensation.

- New product investment.

- Investment for new equipment.

- Protection from competition.

- Guaranteed employment.

• The acquisition was consummated for cash in a combination of up-front money and an earn-out. At that point the acquiror began to smother the seller with the culture and authority of the parent. The seller lost the freedom he enjoyed and the entrepreneurial drive that was so much a part of him. Since the seller had not motivated his staff for the change in management and since the minimum staff levels for success in the earn-out were too low, personnel were lost and the earn-out not fully achieved. With all of this the seller eventually left the parent.

• While the lessons were learned in a painful way, the seller has again returned to the thing he does best, starting companies and then selling them. Among his guiding principles since that first sale are the following:

- Solicit proposals from more than one suitor and conduct a comparative evaluation of the offers. Evaluate not only the offer but the capabilities of the prospective acquiror to make the acquired company successful.

- Enlist the aid of a broker or consultant to find suitors and help in the evaluation of proposals. As a by-product of outsider involvement, less seller time is required, the staff is not made curious or nervous by unusual activity, and the outsider's objectivity brings the egos involved into focus.

- Sell to the highest bidder and the best offer overall.

- Do not personally be a part of the deal.

- Condition and motivate the staff to the possibilitiy of acquisition long before it occurs. (In this company an objective of the staff is to start and sell companies. They are not only prepared for an acquisition: that is the charter.)

- Do not sell on an "earn-out" basis unless forced to, and then be sure there is the staff motivation and commitment to make the earn-out successful.

• The company's current strategy is to start and grow companies, selling one per year when it reaches three years of age or $5 million in revenue, whichever comes first. With the first lessons in selling well-learned, this new venture is more likely to be a success.

VI IMPLEMENTING AN ACQUISITION STRATEGY

VI IMPLEMENTING AN ACQUISITION STRATEGY

A. SELF-ANALYSIS AND MARKET WINDOW DETERMINATION

- The essential preliminary to any serious acquisition strategy is self-analysis, which includes an objective evaluation of the present company's strengths and weaknesses in:

  - Management and management philosophy.

  - Products/services/technologies (range and quality).

  - Customer base (type and quality), market position, market share, overall competitive position.

  - General financial condition (balance sheet, leverageable assets, available loan financing, etc.).

  - In-house people skills (i.e., knowledge of specific markets and ability to adapt to others).

  - Current problems, relating to all of the above--e.g., targeted markets (rate of growth of revenues, market share, customer base growth, penetration rates), product lines (market coverage, competitiveness, technology), etc.

- Obtaining the necessary level of objectivity is sometimes difficult to achieve without outside consulting help, even if management believes that it fully understands the marketplace. The key is to isolate constraints in, e.g., capacity (which may be production capacity-related, manpower capacity-related or management capacity-related), time, financial resources, etc.

- Another major consideration at this stage (and one which must be constantly updated during the acquisition phase until its impact is no longer likely to affect the outcome or success of an acquisition) is market window analysis. The greatest common denominator in failed/nonperforming acquisitions is the failure of the management of the acquiror to identify the timing constraints of the marketplace with respect to the acquisitions that are being considered.

- An example of this is how quickly the value of microcomputer software companies rose and fell with disastrous bottom-line results for the companies who acquired them, merely because little consideration was given to whether the momentary success of microcomputer software companies could be sustained given the trends in the marketplace away from their traditional clientele.

- This is another instance where an outside consultant can be of significant help, since he will be unaffected by the internal politics of the acquiror and more aware of the future trends of the marketplace as they relate to the targeted acquisition. Sadly, the number of companies that disregard the value of this window analysis seems to be rising rather than falling, and is not limited to outside investors (such as banks, financial institutions, industrial groups who have accurately identified the information services industry as an area of high growth), but includes the information services vendors themselves, who should know the vagaries of the market.

- A comprehensive analysis would include not only general market conditions (the economy per se, the strength of the main economic sectors served, tech-

nology changes and competition in the information services market, etc.) but a detailed analysis of the short- and long-term trends of each of the above aspects as they apply to the targeted service sector.

B. PROSPECT PROFILE DEFINITION

- Once acquirors have established a clear picture of who they are, as well as of the nature of the market targeted and the window of opportunity that exists with respect to that market, a prospect profile is needed that encapsulates all of the critical aspects of the ideal target. The profile will need to be very detailed in that it allows homing in on, say, five to ten prospects from a general list of (say) 500 companies.

- An example of a prospect profile is given in Exhibit VI-1. It is concerned with defining the type of organization in parameters that are visible (i.e., freely available) as well as invisible (i.e., data that may not be available without cooperation from the target). The profile must address very practical issues such as "Is the company open to being purchased," which largely determine the type of approach that can be adopted with respect to management, the parent, and outside shareholders.

- The example shown is typical of a services vendor with an excess of $50 million in revenues (the average ratio of revenues acquiror to acquiree is 6:1). However, there are more and more instances of large companies that have little or no current involvement with the services market that are making significant acquisitions; in these cases the ratio does not apply.

EXHIBIT VI-1

SAMPLE PROSPECT PROFILE

ITEM	EXAMPLE
Revenue Size	• $5 M to $15M Maximum if Accounts Only • $7M to $20M Maximum if Some/All of the Hardware Systems are Retained • Negligible Nondata Services (Or at Least Problem-Free)
Growth	• Currently at 30% per Annum • Historically Higher
Profit	• Now, Immaterial (If Clear Potential) • Future, Minimum 10% of Revenue
Service Business	• Not People-Based, Not Project-Based • Repeatable, Average Account of $10K/Annum • Compatible Users (In Sectors that we Currently Service or That are Related) • Location(s) . . . . (Specified)
Hardware	• Compatible/Same as Ours if Integration • Any if Not Integrating, Prefer IBM • Rented/Short Lease - not Owned/Long Lease

EXHIBIT VI-1 (Cont.)

SAMPLE PROSPECT PROFILE

ITEM	EXAMPLE
Management/Staff	• No/Few Shareholders, not Entrepreneurial • If Integrating, Emphasis on Strong Middle Management; If not, Strong Period
Products/Services	• Mature/Competitive • Good Market Image, Name Brands • Complimentary, Unless Ours is Weak
Ownership	• Prefer Large/Majority Owner • Fewer than 5 Small Owners • No/Few/Unimportant Managers
Approach	• No Commitment on Redundancies • Stress Good Synergy with Us • Guarantees to Customers • Growth Opportunities for Management

C. SEARCHING AND SCREENING

- Most companies assign the task of search and screen to a task force whose guidelines are prospect profiles similar to the one shown in Exhibit VI-1 (although rarely as detailed or complete).

- Searching for targets that correspond to the ideal profile can now begin in an organized fashion. In practice this is rarely the case, with companies relying on word of mouth, the industry grapevine, and other informal processes. The list of "possibles" is therefore frequently less complete than it should be before screening begins.

- Screening is usually achieved by the task force and a preliminary "hit" list discussed and approved by management. Two levels of screening are really necessary: (1) preliminary and (2) final, once contact has been established with the target, which should be a total reevaluation of the target to verify all of the data gathered at that time.

- Note that for the purpose of screening the target revenue size should be modulated by any factors related to the assets being acquired as well as to the value of the net revenue volume expected to be retained (which can be different from current revenue in some cases).

- Disposing of nondata services activities is problematic in many cases, since the new owners do not have the necessary expertise to assess the real value of these "foreign" items. However, the need for disposal is just as accute for service vendors who have come to realize that the service acquisitions they accomplished three to four years ago no longer fit the current market strategy of the company.

- A divestiture is almost always a losing proposition since if the acquired company is making steady profits the chances of being divested are low (even

though the strategic misfit still applies)...managers can rarely bring themselves to reduce operating surpluses even if the money were better employed elsewhere. Where the acquisition is losing money or not performing adequately however, steps are taken to rapidly cut the loss and dispose of the offending subsidiary...usually at a loss with respect to the price paid at time of purchase.

- Conversely, when purchasing a company it is not always necessary that the target be currently making a profit (indeed it is usually preferable that the potential for profit be apparent to the acquiror only since this reduces the price). The easiest acquisition to make is one where operating economies make the acquired business immediately profitable or, better still, where the acquired business makes current business profitable by pushing the combined business volume over the critical mass threshold.

- The composition of the business being acquired is the key "invisible" item that needs to be carefully examined. Apart from a detailed analysis of the contracts (duration, pricing, riders, special terms and conditions, obligations, etc.) the stability of the base must be measured. Typically this can be solved by having a formal survey done of the customer's intentions, disguised as a customer satisfaction survey to avoid unnecessary disturbance of the customer base.

D. VALUATION AND NEGOTIATION

- Valuation is a company-specific activity with few fixed guidelines. While a preliminary evaluation can take place before a formal approach and following generally accepted principle (net worth, assets, current and planned profitability etc.) a proper evaluation cannot be completed without some cooperation from the seller. Beyond the usual evaluation criteria, one key factor must be borne in mind that affects the apparent value to the buyer: what, if anything, is the impact of the buyer on the forward potential of the target?

- Target performance, as they would continue alone (no purchase by anyone).

- Target performance, if purchased by a competitor (particularly if a competitor is interested in the target).

- Target performance if purchased by the company with clearly stated areas of quantified synergy associated with any risk factors.

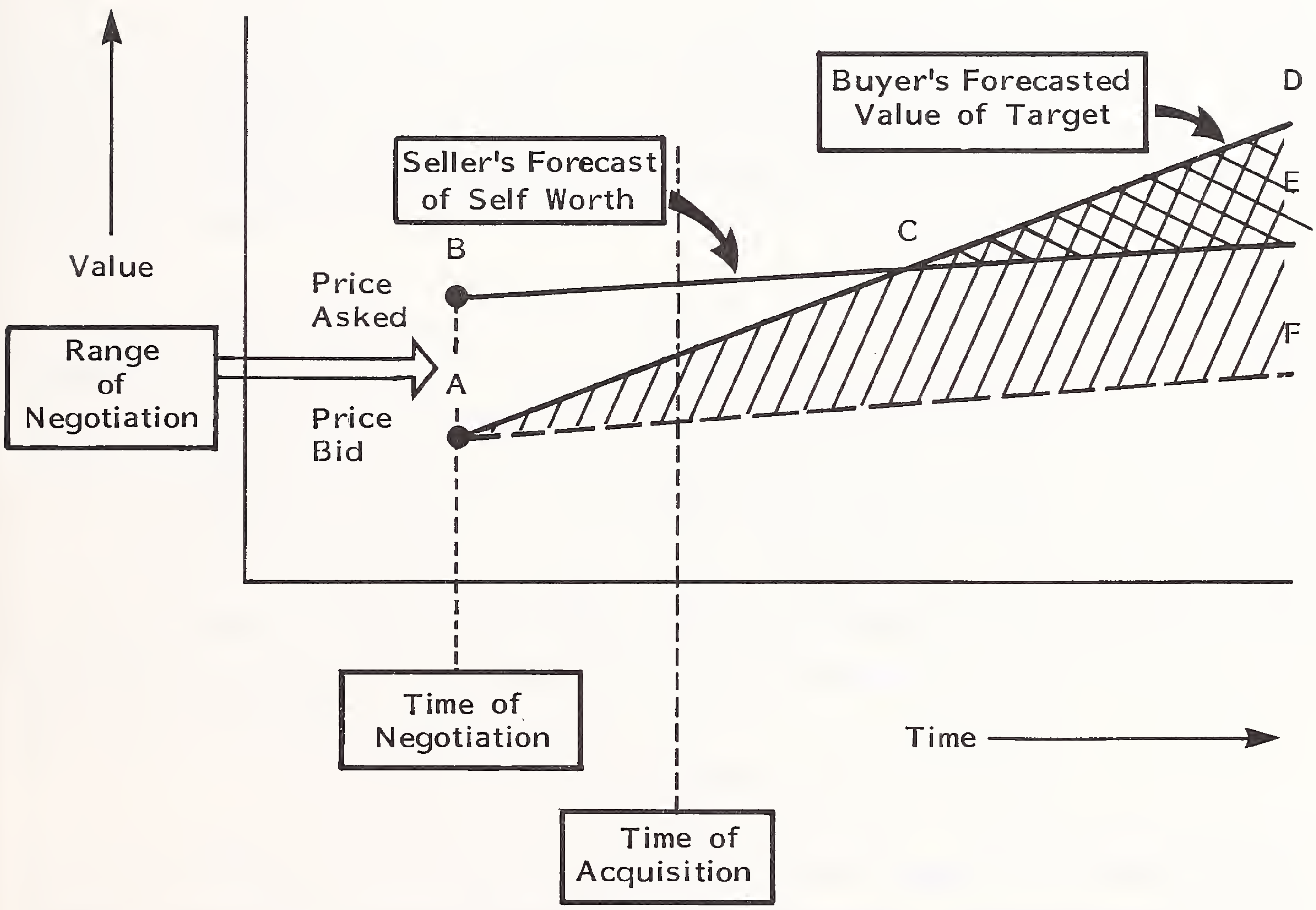
- In some rare cases, an acquisition may have to be made on defensive grounds alone, e.g., to prevent a competitor from gaining access to a particular sector of the market or type of clientele that would have consequences beyond the immediate value of the acquisition itself.

- The point of acquisition may be some time in the future, in which case the present value must be discounted. Exhibit VI-2 provides a notional image of this process. First it is assumed that the seller's price is higher than the buyer's initial offer (range of negotiation). It is also assumed that the forecasted value of the seller is different from that of the buyer by a measure equal to the expected synergy between the merged operations (which will be visible only to the buyer).

- Where the buyer is able to convince the seller that his price is reasonable, the value of this synergy is represented by the shaded area between lines AD and AF. If the seller is unable to convince the buyer that his price is reasonable, then the synergistic value is reduced to the shaded area between lines CD and CE. The present value of the forecasted synergy is the difference in value between the correct minimum price at which the seller would sell and the maximum price the buyer would buy, i.e., the theoretical area of price negotiation.

EXHIBIT VI-2

ACQUISITION VALUATION



D,A,F,-	Theoretical value of synergy, if seller can be persuaded to reduce his price to buyer's valuation
D,C,E,-	Actual value of synergy, if seller cannot be persuaded to reduce his price

- Acquisition valuation techniques commonly used include:

  - Discounted cash flow (i.e., the present value, after applying an interest rate appropriate to cover inflation, risk, and interest of the net cash flows); this is theoretically the best valuation method.

  - Price/earnings ratio (i.e., the multiplication of the expected earnings potential of the company by a value derived by dividing the current valuation of other companies in a similar field by their current earnings); this does not account for the synergistic potential of the target company.

  - Acceptable payback period (i.e., the accumulation of the expected earnings during the acceptable payback period); this provides a guideline as to whether the price asked by the seller is within the bounds of reason but cannot be relied upon to determine the exact price.

  - Assets, intangibles, and goodwill valuation (which frequently gives a very low valuation for information services companies unless the human assets and the goodwill are properly valued); this valuation provides a valuable perspective to the methods above.

- Ideally these factors will not be derived mechanically but will allow for such imponderables as lease commitments, supplier contracts, customer contract base (particularly any immediate changes), current target's parent subsidies, tax carry-forwards, imminent parent/subsidiary changes, imminent key staff changes etc. Should the seller request it, nonfinancial aspects such as guarantees/warranties that are expected to be part of the contract or that the buyer believes he can obtain should also be factored into the valuation.

- If, after all of these aspects have been considered, the price still seems to be out of reach, it is often instructive to evaluate the manpower and financial resources that would be required to create an equivalent business from

scratch. This is often sufficient to put the purchase price of the target in a new light. On the other side of the equation, it is worthwhile noting that planned synergies are often never realized and that management dilution is frequently underestimated.

- One worthwhile consideration in regard to expected synergies is the fact that a parent that does not understand the technology of the subsidiary tends to downgrade the performance of the subsidiary. In the software industry there are few economies of scale that can be achieved and there is a high risk of personality clashes between the acquiror and the acquiree.

- Negotiation, in practice, begins with the first approach and may contine past the contract completion phase. It is vital to establish a position of mutual trust from the beginning by being frank and direct. Without this trust negotiations will be more protracted or can fail. The degree of trust that can be established can have a direct effect on the price paid for a given acquisition: it is frequently the case that a target acquisition that is the object of multiple bids will select the acquiror with whom they feel most comfortable rather than the one that offers the highest price (when the price differential is not excessive).

- It is very worthwhile to investigate the decision makers' concerns and rationale for seeking to be acquired (or, if the acquisition is forced, the fears that they have for their business and their staff). Typically these concerns will include:

    - The future roles and remuneration of the key executives, particularly any contractual safeguards, carry-through of pension rights, stock holdings or options currently held or offered by their present company, etc.

    - The real or effective price of the offering, allowing for the effect of any clauses that are future-performance based, as opposed to the apparent price.

- A clear picture of the role that the company being acquired will play in the new structure (which is where the strategic plan and self analysis comes in handy since it can identify how the pieces are intended to hang together).

- A believable expectation for synergy between the two companies (or at least a strong commitment of support and development from the acquiror for the products and services of the acquiree) and one that both companies feel comfortable with.

- In the case of acquisition of a subsidiary, a contractual commitment to supporting the parent (where applicable) for captive services currently rendered by the subsidiary that is being acquired.

- Simplicity of approach and a short timetable for completion/decision. This frequently hinges on making sure that either the right level people are part of the negotiation team or that the authority for major decisions is vested in the team members; all too often the negotiating team is powerless, which leads to frustration on the part of the target acquisition.

• Incompatibility or poor chemistry between the individuals on either side of the table must be guarded against and instantly rectified if it occurs. This is another case of the customer always being right (the "customer," in this instance, being the target). In the same way, it is important to realize that if the major objectives are achieved it pays to let the other side win some of the smaller points.

• There are two schools of thought with regard to this phase of the negotiation. The first argues that if the main points are right, any reasonable proposals on contract detail should be accepted; the second considers that each point must be treated on its own merits, independent of any others. The

question that needs to be answered in this case is "what are the risks to the success of the overall contract (in terms of backlash) if every point is a subject of major discussion?"

- With regard to risk, one should never underestimate the competition or their progress with the target acquisition. A lesson leaned by every negotiator at one point or another is that it very easy for three or four prospective buyers to think that each is ahead in the negotiations. Don't expect the management of the target to be entirely honest with you in this regard.

- Once the negotiations have been concluded and an outline agreement drawn up, the reduction of the agreement to a binding legal document must be accomplished--the most frequently underestimated aspect of the whole process. It is not uncommon for this to take from three to ten months. The actual completion can therefore still be far off, even after an agreement in principle has been reached that can seriously affect the expected market window plan (and in some cases jeopardize the entire agreement).

- "Good acquisitions take longer to find, longer to complete and longer to absorb than that which you have planned--regardless of the contingencies you have included."

E. POST-ACQUISITION STRATEGY: MAKING IT WORK

- The value of an acquired company is only partly in its user base, products, and assets. those are tangibles, easily identified, measured and usually valued (although the opinions of the acquiror and acquiree may differ substantially on this last point). Each company has a unique culture and method of operation that was largely responsible for its success; these are intangible, difficult to identify, measure, and (above all) value. Undervaluation of these intangibles leads to acrimonious negotiations at the front end (where the acquiree's

management team feel they are being undervalued), and disillusionment after the acquisition (where the team may disband altogether).

- Two interesting experiments in culture-clash are underway right now which are almost mirror images:

  - IBM's takeover of ROLM: the formal, regimented, stiff IBM imposing its will on laid-back ROLM.

  - GM's purchase of EDS (also known as the takeover of GM's information services departments by EDS) where the formal, regimented EDS is trying to impose its culture on the acquiror.

- These are not peripheral issues: they will determine whether the acquired companies produce growth and profits compatible with the heavy prices paid for them. Clearly, as much attention ought to be paid to this issue as to customer satisfaction within the ranks of the acquired companies.

- The most important thing to realize is that the degree of interference/intervention by the acquiror in the operations of the acquiree has to be gauged very carefully. If the company acquired is of the fast growth/high profit variety it is wise to let it run as an independent entity until the steam runs out: any outside intervention by the acquiror will be resented. On the other hand, strong management direction and close supervision will be readily accepted by an acquired company that is racking up heavy losses or is in disarray.

- Basically the key question is: "Does the company we are acquiring agree with the role and plans we have in mind for it? If not, and we lose the managers/engineers/other key entrepreneurial staff, what's left?" Very few companies are able to refrain from tinkering or trying to show who's in charge with their acquisitions. The result is that many obtain a poor return for their investment.

- In the information services industry's various sectors the opportunities and problems are unique, problems that must be viewed in the context of the high multiples being paid currently (typically price/earnings ratios are twice the S&P 500 average):

  - Software products is the most difficult sector for integrating acquisitions because of the high potential for disagreement: design of interfaces, file structures, program design, integration of elements/modules, what the market requires, whether the approach adopted by the acquiror's product lines is superior to the acquiree's products, and the list goes on. A "holding company" approach, letting each company operate independently (and possibly cooperatively) is best.

  - The value of turnkey systems acquisitions is largely dependent on the acquiror's ability to leverage the product through additional sales channels (otherwise the company will continue to operate at its current rate, which means a long payback period given the high multiples being paid); this is hard to do and may explain why turnkey systems are relatively infrequent targets for acquisitions.

  - Processing services acquisitions are, generally speaking, easiest to benefit from, because acquirors are frequently able to leverage existing DP equipment processing capacity and customer bases with complementary services; also vendor/customer contractual relationships are frequently multiyear and relatively arm's-length.

F. VENTURE CAPITAL: COMPLEMENT TO ACQUISITIONS

- Large information services vendors have an opportunity to adopt another, high-risk option to outright acquisition, particularly in those markets that are

developing very rapidly and where the outcome is uncertain: venture capital funding of small to medium-sized companies, with options to increase ownership at selected stages.

- An example of this would be the microcomputer software market, where a lot of unnecessary risk has been assumed by many information services vendors by acquiring outright whole microcomputer software companies long before the market had settled and their future determined. Too often an element of haste enters an otherwise correct corporate strategy and causes decisions to be made that are regretted later.

- In today's fast-moving, technology-driven markets, new opportunities and new markets are created overnight--and corporate offices viewing these developments are seized with the fear that they are "missing the boat" if they don't secure a stake now. It is hard to sit on the sidelines and let a new market mature before entering it. (This temptation applies across all industries and is not limited to the information services business; an example is the current rush into the third-party maintenance of personal computers, which has to rank among the riskiest businesses available.)

- Venture capital funding of small/medium start-up preserves the vendor's position in the industry while substantially reducing the risk (which is shared by the other partners/shareholders in the start-up). This approach, as with outright acquisition, requires a clearly-stated, well thought-out strategy toward:

  - The type of target company sought.

  - The stage of development that must have been reached.

  - The limit on initial funding.

  - The options that must be available for increasing the vendors' stake.

  - The conditions under which these options will be executed:

- There are several stages at which investments can be made:

  - Zero stage (founders' stock investments), based on evaluation of a business plan; this stage requires a high level of competence with regard to product/sevice potential, patent evaluation, technology feasibility, and above all quality of the people involved.

  - First stage (or first round financing), usually when the prototype has been built and tested and the initial marketing/production stage has been reached; this requires market judgment: "Is the market ready for this product and is the product ready for the market?"

  - Second stage (or mezzanine financing) for market expansion, production expansion, etc.; investments at this stage are easy to evaluate.

- The financial rewards that can be achieved from any one stage are directly proportional to the risks involved: high risk, high reward. So are the losses. However, other considerations can mature these kinds of high-risk investments, e.g.:

  - "How much would a stake in this business cost if we try entering as the second stage rather than the first?"

  - "Can we supplement/(replace?) our own in-house R&D efforts by investing in start-ups which may produce very high returns for the same level of monetary commitment?"

  - "Do we need to assure access to technology developments or monitor progress in these areas and can we do so by a minority stake in ABC company?"

- The manner in which these investments take place can vary significantly. For example, conscious of the difficulties of gaining access to the deal flow, or in

obtaining the necessary in-house skills for deal evaluation and investment negotiation, a vendor may decide to simply participate in a specific venture fund that is focused on the types of business opportunities that he wishes to be involved in. The difficulty with this approach is that translating a minor share into an outright acquisition can be difficult, impossible or very expensive, so that having a director on the board of each company invested in may be needed to facilitate the move when the time comes.

G. ARE ACQUISITIONS FOR LARGE VENDORS ONLY?

- Selling into a rapidly developing market does not present too many problems for any of the vendors that are participants, whatever their size: essentially they can assure that the market is, for all practical purpses, "infinite" in the short term (i.e., none of them can exhaust their opportunities in the current year with the resources that they have). As the market matures, however, conditions change. Each vendor rapidly perceives a focusing of his role, market niche, and competition as the market space in which he moves becomes finite.

- For practical purposes a market that is expanding at less than 10% per annum can be termed "mature," and this certainly applies to batch processing services for example. However, there are still many niches within batch processing that are growing well above 10% and many batch companies that are doing the same, but let us assume that either a market or a vendor has reached maturity and must now look to grow by acquisition. Is this option open to large vendors only or can small companies participate, and if so, how?

- To begin with, large companies appear to have more difficulty making an acquisition than small companies, mainly due to the fact that the acquisition process presents the acquiror's management with a steady stream of situations requiring fast decisions and great flexibility--none of which are easily

achieved by a large staff. Small companies, on the other hand, tend to have decision power concentrated in one or two individuals who can easily reverse a stated position if they need to, without much anguish. Secondly, the profile of the smaller acquiror is more clearly defined in terms of management style, strategy, and market orientation. As a result it is quickly apparent if the acquisition candidate will "gel" with the acquiror. The large company presents a more amorphous, diffuse profile that is difficult to quantify and therefore difficult to match against potential acquisitions.

- Acquisition opportunities frequently occur that do not fit the elaborately defined profile produced by advanced planning. When these occur, acquirors must be opportunistic--capable of revising their criteria to allow open-minded evaluation of the opportunity. The smaller the company the easier this is to do.

- Once the acquisition is accomplished, the long, sometimes painful period of adjustment begins where each of the companies tries to merge its preacquisition products, management style, personnel, and procedures into that of the partner. Small companies find this relatively easy: where necessary the acquiror can adapt itself to the exigencies of the acquired company where it makes sense. No such option is available with large acquirors who are only interested in one kind of adaptation: that which acquired companies need to accomplish in order to fit their mode of operations.

- Finally, there is one frequently forgotten advantage the small company has over the large company: at the time of the approach, the target company may be easily frightened off by the large corporation, whereas the smaller concern appears to be less of a threat. This perception has good chances for continuing through the acquisition process, thanks to the flexibility of the small company.

APPENDIX A: ACQUIROR QUESTIONNAIRE

APPENDIX A
ACQUIROR QUESTIONNAIRE

1. How many people do you have whose sole job is acquisition? ______________

   Whose main task is acquisition? ______________

   How many specialists (attorneys/accountants) are assigned to acquisition support?

   ____

2. Please identify number of acquisitions made over the last four years:

YEAR	NUMBER OF COMPANIES ACQUIRED	AGGREGATE SIZE	PERCENT OF CURRENT BUSINESS
1981	______	______	______
1982	______	______	______
1983	______	______	______
1984	______	______	______

3. Please provide your estimates of following parameters for the last year you made acquisitions.

   ______ Number of Contacts

   ______ Number Seriously Considered (Formal Evaluation)

   ______ Number of Proposals

   ______ Number of Closes

4. How have your acquisitions been made?

   ______ Number (%) for Cash

   ______ Number (%) for Stock

   ______ Number (%) for Combination

   ______ Other

   Do you use "earn-outs"? ______________

   Over what period? ______________

5. How has the method of acquisition changed with time and how will it change in the future? Please comment on industry reasons and company reasons.

____

____

____

6. How is initial contact generally made for your successful acquisitions?

Acquiror __________%

Acquiree __________%

Broker __________%

Other __________%

7. Please discuss your attitude to the use of finders and brokers. Are you satisfied with the services they offer? What additional services would you like?

____

____

____

8. What general sources of information are useful in terms of prospect indentification?

☐ ADAPSO

☐ Consultants

☐ Trade Press

☐ Research Reports

☐ Other ____________ ____________ ____________

9. For recent acquisitions please describe the average cost and length of the process.

	ELAPSED TIME (Months)	COST ($ Thousands or Percent)
Search		
Evaluation		
Negotiation		
Close		
Total		

10. Please check the stages at which each of the following become involved:

	SEARCH	EVALUATION	NEGOTIATION	CLOSE
INTERNAL				
Top Management	☐	☐	☐	☐
Board of Directors	☐	☐	☐	☐
Acquisition Function	☐	☐	☐	☐
Planning Function	☐	☐	☐	☐
Company Attorney	☐	☐	☐	☐
Technical Staff	☐	☐	☐	☐
Financial Staff	☐	☐	☐	☐
EXTERNAL				
Outside Attorney	☐	☐	☐	☐
External Auditor	☐	☐	☐	☐
Financial Advisors	☐	☐	☐	☐
Brokers/Consultants	☐	☐	☐	☐

11. For a recent acquisition please analyze costs as follows:

_________ % Personnel

_________ % Legal External (Including Necessary Filings)

_________ % Accounting

_________ % Travel

_________ % Other, Including Broker's Fee _______________________________

12. Please give your evaluation of your satisfaction (i.e., degree to which your expectations were met) with acquisitions your company has made. (Please give numbers where more than one acquisition has been made.)

	GOOD	BAD	INDIFFERE
Representation by Acquired Company	________	________	________
Management of Acquired Company	________	________	________
Subsequent Performance of Acquired Company	________	________	________

13. On what basis do you evaluate a potential acquisition? Please indicate priority by putting 1, 2, 3, etc. in boxes and give multiplier where possible.

Revenues	☐	Multiplier	________
Profit	☐	Multiplier	________
Net Worth	☐	Multiplier	________
Growth Potential	☐	Multiplier	________
Product Specialization	☐	Multiplier	________
Industry Client Base	☐	Multiplier	________
Geographic Location	☐	Multiplier	________
Type of Service Offered	☐	Multiplier	________
Type of Hardware	☐	Multiplier	________
Other: Please Describe	☐	Multiplier	________

____

____

14. What is the profile of companies you are looking for now?

- [ ] < $2 Million
- [ ] $5-20 Million
- [ ] $2-5 Million
- [ ] > $20 Million

TYPE OF COMPANY

Software Products

- [ ] General Applications Products
- [ ] Industry-Specialized Application Products
- [ ] Systems Software Products

- [ ] Professional Services

Processing Services by Type of Service

- [ ] General Business
- [ ] Scientific and Engineering
- [ ] Industry Specialized
- [ ] Utility

Processing Services by Mode of Service

- [ ] Batch
- [ ] RCS
- [ ] FM
- [ ] Multiservice

OTHER

Communication Servcies

Office Automation Services

Equipment Manufacturers

- [ ] Computer
- [ ] Communications
- [ ] Office
- [ ] Other (Please Specify) ______________________________

15. Do you have competitors in the acquisition field? What are their strengths? What are their Weaknesses?

COMPANY	STRENGTHS	WEAKNESSES

16. What are the most significant difficulties in post-acquisition implementation? How can these be addressed?

	DIFFICULTY	SOLUTIONS
In Marketing		
In Management		
In Product Development		
In Operation		

17. What have you learned about the acquisition process that you can share?

Thank You.

APPENDIX B: ACQUIREE COMPANY QUESTIONNAIRE

CATALOG NO. MMAC

APPENDIX B

Date Acquired: ____/____/____ By Whom: ____________________

ACQUIREE COMPANY QUESTIONNAIRE

1. How many companies sought to acquire you?

   Contacts (Preliminary Discussion) ____________

   Serious Discussions ____________

   Firm Proposals ____________

2. Who initiated the contact from the acquiror?

   ____

3. Why did you select the acquiror?

   ____

   ____

   ____

   ____

4. Today, which companies would you consider and/or select? Why?

   ____

   ____

   ____

   ____

   ____

5. Please rank the importance of the following in your choice on a scale of 0 to 10, where 10 = most important and 0 = not considered.

	RANK	COMMENT
INDIVIDUAL BENEFITS		
Cash Tradeable Stock	____	____________________
Guaranteed Employment	____	____________________
Deferred Compensation/ Retirement	____	____________________
CORPORATE BENEFITS		
Cash Shortage	____	____________________
Market Expansion	____	____________________
Protection from Competition	____	____________________
National Sales Force	____	____________________
Investment for New Products	____	____________________
Investment for Equipment/Other	____	____________________
OTHER REASONS		
Family/Health	____	____________________
Other (Specify)	____	____________________

____

____

6. How long did the acquisition process take?

____

7a. How did the integration process work out?

b. What unforeseen problems arose? How were they handled?

8. Did you use a broker? ☐ Yes ☐ No

Why?

Would you do so again? ☐ Yes ☐ No

Which broker did you use?

Were you satisfied with them? ☐ Yes ☐ No

Please comment on broker:

9. What was the cost of the acquistion process?

Personnel Time (Man Months)

Other Costs

10. How did you value your company? Please give factor (revenues, NIBT, etc.) and multiplier.

____

____

____

____

11. What was the basis for acquisition?

__________ % Cash __________ % Stock

12. How much was up-front? Earn-out?

__________ % Front-End __________ % Earn-Out

13. Did you achieve your objectives?

____

____

____

14. Would you make the same decision now?

____

____

15. What would you change?

____

____

____

____

16. How did you protect your people?

____

____

17a. Please comment on the acquisiton process in the computer services industry. What impact will it have on the industry?

b. Must a major company have an acquistion program?

c. Other comments:

Thank You.

APPENDIX C: TOTAL INFORMATION SERVICES USER EXPENDITURE FORECAST BY DELIVERY MODE, 1984-1989

APPENDIX C

TOTAL INFORMATION SERVICES USER EXPENDITURE FORECAST BY DELIVERY MODE, 1984-1989

	($M) 1983	83-84 GROWTH	($M) 1984	($M) 1985	($M) 1986	($M) 1987	($M) 1988	($M) 1989	84-89 AAGR
DELIVERY MODE									
REMOTE COMPUTING SERVICES									
INDUSTRY SPECIFIC	3338	16%	3866	4536	5317	6236	7311	8516	17%
CROSS INDUSTRY	2122	15%	2439	2842	3297	3843	4507	5296	17%
UTILITY PROCESSING	1141	7%	1225	1332	1444	1565	1697	1840	8%
SUBTOTAL	6601	14%	7530	8710	10058	11644	13514	15651	16%
BATCH PROCESSING SERVICES									
INDUSTRY SPECIFIC	2386	8%	2579	2755	2937	3092	3231	3322	5%
CROSS INDUSTRY	1394	9%	1525	1652	1772	1885	1987	2063	6%
UTILITY PROCESSING	575	5%	603	625	640	648	649	666	2%
SUBTOTAL	4355	8%	4707	5032	5350	5626	5866	6051	5%
FACILITIES MANAGEMENT									
INDUSTRY SPECIFIC	1260	15%	1453	1693	1989	2341	2761	3244	17%
CROSS INDUSTRY	53	4%	55	56	57	57	57	57	1%
UTILITY PROCESSING	118	16%	136	159	187	224	272	329	19%
SUBTOTAL	1431	15%	1644	1909	2233	2622	3090	3630	17%
TOTAL PROCESSING SERVICES									
INDUSTRY SPECIFIC	6983	13%	7898	8985	10243	11669	13303	15082	14%
CROSS INDUSTRY	3570	13%	4019	4551	5127	5786	6551	7417	13%
UTILITY PROCESSING	1834	7%	1964	2115	2272	2437	2617	2834	8%
VANS	230	25%	288	368	478	622	827	1100	31%
TOTAL	12617	12%	14169	16018	18120	20514	23297	26433	13%
SOFTWARE PRODUCTS									
APPLICATION SOFTWARE PRODUCTS									
INDUSTRY SPECIFIC	2016	36%	2792	3858	5264	7107	9576	13097	35%
CROSS INDUSTRY	2366	28%	3176	4128	5213	6514	8134	10224	20%
SUBTOTAL	4383	36%	5969	7986	10477	13621	17710	23321	31%
SYSTEMS SOFTWARE	3511	31%	4600	6038	7897	10249	13206	16713	29%
TOTAL SOFTWARE	7894	34%	10569	14024	18374	23870	30916	40034	31%
PROFESSIONAL SERVICES	7171	20%	8584	10291	12332	14862	17940	21653	20%
TURNKEY SYSTEMS									
INDUSTRY SPECIFIC	2952	30%	3830	5019	6427	8168	10426	13302	28%
CROSS INDUSTRY	1524	28%	1944	2488	3144	3949	4860	6079	26%
TOTAL TURNKEY SYSTEMS	4476	29%	5775	7507	9571	12117	15286	19381	27%
GRAND TOTAL	32157	22%	39096	47840	58396	71363	87439	107501	22%

APPENDIX D: 1984 INFORMATION SERVICES ACQUISITIONS BY QUARTER

APPENDIX D:

1984 INFORMATION SERVICES ACQUISITIONS BY QUARTER
1st QUARTER 1984 ACQUISITIONS

FIRM ACQUIRED	BY WHOM	BUSINESS	DATE	MODE	VALUE
ANTAEUS PERSONNEL SERVICES CORP.	DATA DIMENSIONS INC.	Processing	Jan.	B,SX	N/A
ASTEC INC.	MICROS SYSTEMS INC.	Micro Software	Dec.	B	N/A
CADIMATION INC.	EVANS & SUTHERLAND	Software	Jan.	E	$3M
CDEX CORP.	DOW JONES & CO.	Micro Software	Jan.	E	N/A
COMPUTER SHARING SERVICES INC.	McDONNELL DOUGLAS CORP.	Software Services	Jan.	C	$69.2M
CONSOLIDATED COM-PUTER INT'L INC	RECOGNITION EQUIPMENT	System Services	Dec	B,S	$2.7M
COX DATA SERVICES	COLUMBINE SYSTEMS INC.	Information Services	Jan.	B	N/A
CUSTOM COMPUTER SYSTEMS INC.	VISUAL TECHNOLOGY INC	Professional Services	Dec.	B,S	$2.3M
DELPHI SYSTEMS ASSOC. INC.	PHILADELPHIA SUBURBAN	Professional Services	Dec.	S	N/A
FINANCIAL PLANNING SOFTWARE	DUN & BRADSTREET CORP.	Software	Feb.	B	N/A
FIRST STAR SOFTWARE INC.	WARNER COMMUN-ICATIONS	Software	Dec.	E	N/A
GRAPHICS TECHNOLOGY CORP.	BURROUGHS CORP.	Systems Manufacturing	Feb.	B	N/A
HOLVIC CORP.	COMPUTER TASK GROUP	Professional Services	Feb.	B	N/A
INDESERV	FIRST DATA RESOURCES	TPM	Dec.	M	N/A
MICRO COMPUTER TAX SYSTEMS INC.	COMPUTERLANGUAGE RESEARCH	Micro Software	Jan.	B,SX	$15M
NEVADA COMPUTER SERVICES INC.	LODGISTIX INC.	Systems Design	Jan.	S	$2M
OPTIMIZED PLANNING SYSTEMS INC.	AUTOMATED PRO-FESSIONAL SYSTEMS	Systems Software	Feb.	D,S	N/A
ORGANIZATION FOR INDUSTRIAL RESEARCH	COMPUTERVISION CORP. CORP.	Software	Feb.	B	N/A
PLANNING ECONOMICS SOFTWARE	DOW JONES & CO.	Application Software	Dec.	E	N/A
SOFTWARE DESIGN ASSOC. INC.	AGS COMPUTERS	Software	Jan.	B	$12.7M
SOFTWARE VENTURES INC.	DOW JONES & CO.'	Micro Software	Dec.	E	N/A
SYSTEMS ASSURANCE	UNIDATA SYSTEMS INC.	Software	Feb.	SX	$4.3M
TBL INC.	FOX MEYER CORP.	Micro Systems	Dec.	B	N/A
UNIDATA SYSTEMS	SYSTEMS ASSURANCE CORP.	Software Developer	Jan.	B,S	N/A
UVEON CORP.	AMS/REALSTAR INC.	Manufacturing Software	Dec.	SX	$1.6M

Key: B = Buyout, C = Cash, D = Debt Securities, Debentures, E = Equity Interest, M = Merger, S = Stock, SX = Stock Exchange, N/A = Not Available.

2nd QUARTER 1984 ACQUISITIONS

FIRM ACQUIRED	BY WHOM	BUSINESS	DATE	MODE	VALUE
ADL ENTERPRISES	ULTIMATE COMPUTER SERVICES	Computer Services	Apr.	M	N/A
ADMINISTRATIVE SYSTEMS INC.	COGNITRONICS	Software	Mar.	B,C,S	$1.2M
ADVO-SYSTEM INC.	JOHN BLAIR and CO.	Mail Processor	Mar.	B	$36M
AMERICAN COMPUTER CORP.	COGNITRONICS	Wholesale Computers and Software	Mar.	M	N/A
AUDITEL	DEXEL SYSTEMS CORP.	Computer Hardware and Software	Apr.	B	N/A
AVATAR SYSTEMS INC.	ON-LINE COMPUTER LIBRARY CENTER	Processing Services	Mar.	M	N/A
B.A. NICHOLSON & CO.	FEROX MICRO SYSTEMS	Micro Software	May	M	N/A
BUNKER RAMO (Electronic Supply Division)	EATON CORP.	Non-CS	May	C	N/A
COMPUTER CORP. OF AMERICA	CROWNTEK	DBMS Supplier	May	B	$40M
CTEC INC.	GRUMMAN DATA SYSTEMS CORP.	Software and Systems Engineering	Mar.	B,C	N/A
FLORIDA DATA SERVICES INC.	NORTH AMERICAN FINANCIAL SERVICES LTD. & SOUTHERN C.I.F. SERVICES INC.	Processing Services	Mar.	B	N/A
JOSEPH & COGAN ASSOC'S INC.	BURROUGHS CORP.	Software Services	Mar.	B,M	N/A
OHIO MICRO SYSTEMS INC.	COMPUCARE INC.	Micro Office Systems	Apr.	B,C	N/A
OWLCAT INT'L CORP.	DIGITAL RESEARCH	Educational Software	Mar.	B,M	N/A
PERSONAL SYSTEMS TECHNOLOGY INC.	EMULEX CORP.	Software	Mar.	B,M	N/A
SHASTA GENERAL SYSTEMS	K-G INTERESTS OF HOUSTON	Hardware and Software Mfg.	Mar.	B	N/A
SOFTWARE ASSISTANCE	DOVETAIL SYSTEMS INC.	Software	Apr.	B,C,S	N/A
SORCIM	COMPUTER ASSOC.	Software	May	B,C	$17.6M
TYMSHARE	McDONNELL DOUGLAS CORP.	Data Comm. and Computer Services	Mar.	B,C	$307.5M

Key: B = Buyout, C = Cash, D = Debt Securities, Debentures, E = Equity Interest, M = Merger, S = Stock, SX = Stock Exchange, N/A = Not Available.

3rd QUARTER 1984 ACQUISITIONS

FIRM ACQUIRED	BY WHOM	BUSINESS	DATE	MODE	VALUE
ATARI	J TRAMIEL	Home Computers	July	B,D	$240 M
AUTOMATIX	GM	Robotics	Aug.	E	N/A
AVERA	NCA CORP.	CAD Software	Aug.	M,C,S	N/A
BASIC FOUR	B LEBOW	Computers	Aug.	B,C,D	$105 M
BOB WHITE C & S	CULLINET	Banking Software	July	N/A	$8.3 M
CGA COMPUTER	GENERAL ATLANTIC	Software, Professional Svcs.	July	M,C	$44 M
COMPUSHOP	INACOMP	Retail Stores	June	M,C,S	N/A
COMPUTER INPUT SVC.	CGW DATA SVC.	Processing	Aug.	B,C	$623 K
COMPUTER SOURCE	COMPUTER STORE	Retail Stores	July	SX	N/A
COMSERV	CONTROL DATA	Manufacturing Software	Aug.	E, 20%	$2 M
CONVERSIONS INC.	RAND INFO. SYS.	Systems Software	June	B,C,S	N/A
CYMA CORP.	MCGRAW-HILL	Micro Software	Aug.	C	$15.5 M
DATACOM SYSTEMS	LOCKHEED		Aug.		$38 M
DATASTREAM PLC	D & B	Information Services	July	B,C	$101.7 M
DIFFRACTO LTD.	GM	Robotics	Aug.	E	N/A
DIGITAL PRODUCTIONS	CONTROL DATA	3D Graphics	July	E, 60%	$5 M
DIST. RESEARCH ASSOC.	MSA	Manufacturing Software	Aug.	B	N/A
EDS	GM	Professional Services	June	B,C,S,D	$2.5 B
EXECUCOM SYSTEMS	CONTEL (STSC)	DSS Software	July	B,SX	$18 M
FUTURE COMPUTING	MCGRAW-HILL	Market Research	July	B,C	N/A
GIFFORD COMPUTER	ZITEL	Micro Systems Software	June	B,S	N/A
GENRA GROUP	MOORE BUS. FORM	Retail Stores	Aug.	B,C	$10 M
GRANGER ASSOC.	DIGITAL SWITCH	Telecommunications	June	M,C	$350 M
INDEX SYS. (SW GROUP)	SEI CORP.	Financial Software	July	N/A	$4 M
INTECOM	WANG	PBX	June	E, 16%	$66.7 M
JOHNSON SYSTEMS	COMPUTER ASSOC.	Systems Software	June	B,C	$16 M

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Continued

3rd QUARTER 1984 ACQUISITIONS

FIRM ACQUIRED	BY WHOM	BUSINESS	DATE	MODE	VALUE
MAI	I BOESKY	Computers	June	E, 5.5%	N/A
MAXIM TECHNOLOGIES	HAMBRECHT & QUIST	Telecommunications/Gov't.	Aug.	B,C	$554 K
MODULAR DATA SYST.	MACNEAL-SCHWENDLER	Manufacturing Software	July	B,C,S	N/A
MOHAWK DATA SCI.	A EDELMAN	Computers	Aug.	E, 2.5%	N/A
MONCHIK-WEBER	MCGRAW-HILL	Processing	Aug.	B,C	$55.5 M
NATIONAL INFO. SYS.	DYSAN CORP.	Systems Software	June	E,C	$1 M
AC NIELSEN	D & B	Market Research	Aug.	B,S	$1.3 B
NORTH STAR	FORTUNE SYST.	Computers	Aug.	E,D, 19%	$3.75 M
OLIVETTI	AT&T	Computers, Office Products	June	E	N/A
ORGANIC SOFTWARE	ELECTRONIC ARTS	Micro Software	June	B	N/A
PACESETTER SYST.	SHARED FINANCIAL	Banking Software	Aug.	B,C	$3-4 M
PC TELEMART	RR BOWKER (XEROX)	Software Data Base	July	N/A	N/A
PETROPHYSICAL SVC.	LITTON INDUSTRIES	Professional Services	Aug.	N/A	$11.2 M
PRODUCTION CONTROL	TYMSHARE	TPM	Aug.	N/A	N/A
PSYCH SYSTEMS	CHARTER MEDICAL	Processing	June	E, 25.1%	$3.50/Share
RAYTHEON DATA SYS.	TELEX	Terminals	Aug.	B	$200 M
SCIENCE MGMT. CORP.	HILL INT'L	Professional Services	June	E	N/A
SCIENTIFIC CALC	DEC	CAD Software	Aug.	E	$15 M
SOFTWRIGHT LTD	MICROFOCUS GROUP	Micro Software	July	N/A	N/A
SORBUS	BELL ATLANTIC	TPM	Aug.	B,C	$175 M
UNIVERSAL COMPUTING	INFORMATICS	Software	July	N/A	N/A
VICTOR TECHNOLOGIES	BETA SYSTEMS	Computers	Aug.	N/A	$30 M
VIEW ENGINEERING	GM	Robotics	Aug.	E	N/A
WAYBERN CORP.	DATATRON	Software Distributor	July	D	$750 K

Key: B = Buyout, C = Cash, D = Debt Securities, Debentures, E = Equity Interest, M = Merger, S = Stock,
SX = Stock Exchange, N/A = Not Available.

4TH QUARTER
1984 ACQUISITIONS

FIRM ACQUIRED	BY WHOM	BUSINESS	DATE	MODE	VALUE
AMHERST ASSOC. INC.	HBO & CO.		Nov.	S	$50M
AMTEC SYSTEMS CORP.	COMPUTER TASK GROUP INC.	Professional Services	Sep.	B	N/A
ARKAY COMPUTERS INC.	COMPUTER ASSOC'S INT'L INC.	Software	Sep.	B	N/A
AZURDATA	MSI DATA	Software Development	Nov.	S	N/A
C&E SOFTWARE INC.	SYMANTEC CORP.	Software Development	Sep.	M	N/A
CHILDWARE	HUMAN ENGINEERED SOFTWARE	Software Development	Sep.	B,C,S	N/A
CHRISTENSEN SYSTEMS INC.	PANSOPHIC SYSTEMS INC.	Software	Nov.	C,B	$2M
COMMUNICATIONS SOLUTIONS INC.	CDC	Software and Professional Services	Nov.	C	$5M
DESIGNWARE INC.	MANAGEMENT SCIENCE AMERICA INC.	Micro Software	Sep.	S	$2M
DIGITAL DATACOM INC.	HONEYWELL	Manufacturing Systems	Nov.	M,C,	$10M
EOCOM ELECTRONICS SYSTEMS	GERBER SCIENTIFIC	Laser-Based Imaging Devices	Sep.	B	$6M
GIFFORD COMPUTER SYSTEMS	ZITEL CORP.	Computers	Sep.	S	N/A
MEDIFLEX SYSTEMS	HBO & CO.		Nov.	S	$82.9M
PALADIN SOFTWARE CORP.	VISICORP	Software	Nov.	M,S	N/A
ROLM	IBM	Telecommunications	Oct.	M	$1.25B
S.B. SYSTEMS INC.	SPECTRO INDUSTRIES INC.	Computer Systems	Sep.	C,S,B	N/A
SELECT INFORMATION SYSTEMS INC.	SUMMA SOFTWARE CORP.	Software Development	Oct.	M,SX	N/A
SOFTCOM INC.	HAYES MICROCOMPUTER PRODUCTS	Software	Sep.	B	N/A
SOFTREND INC.	BPI SYSTEMS INC.	Software	Sep.	M,SX	$3M
THOMAS NATIONAL GROUP	DUN & BRADSTREET	Software and Services	Oct.	B,C	$45M
TSC DATA TERMINALS	ULTIMATE COMPUTER SERVICES INC.	Terminals	Sep.	B	N/A

Key: B = Buyout, C = Cash, D = Debt Securities, Debentures, E = Equity Interest, M = Merger, S = Stock, SX = Stock Exchange, N/A = Not Available.